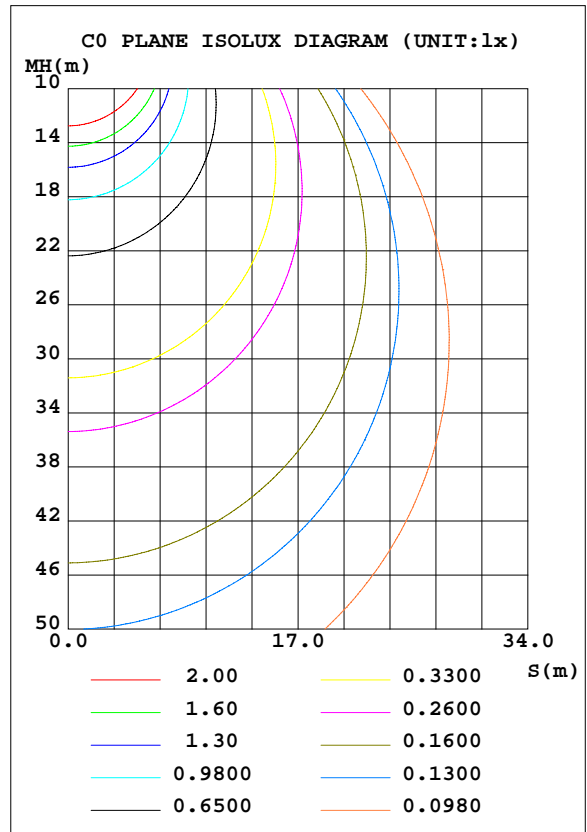
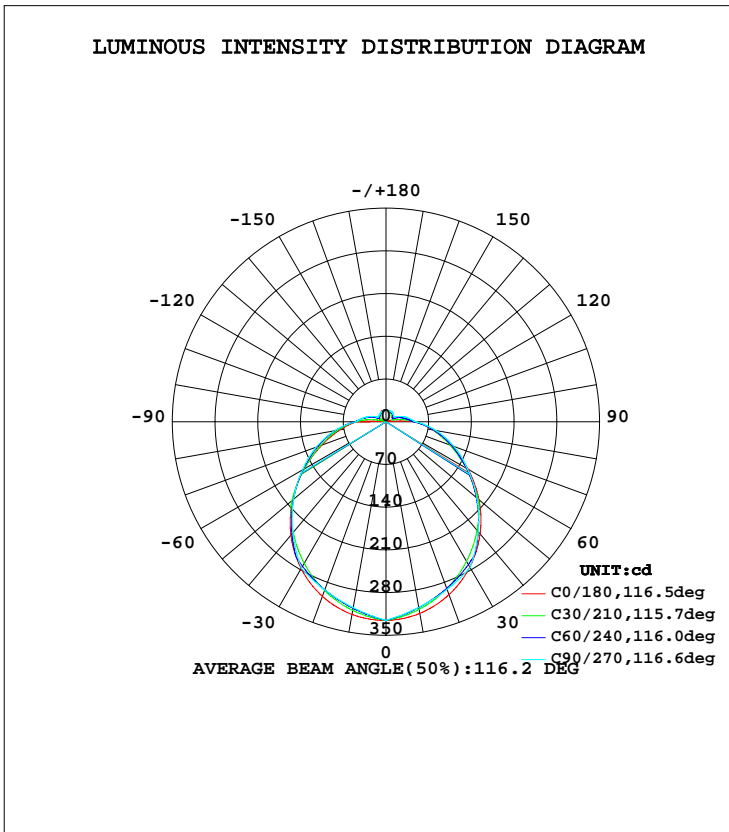


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.57 lm/W			
MODEL	83754	I _{max} (cd)	325.6	S/MH(C0/180)	1.27
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)		TOTAL FLUX(lm)	1160.9	η UP, DN(C0-180)	5.3, 44.3
NOMINAL FLUX(lm)	1160.89	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	5.4, 44.9
LAMPS INSIDE	1	η up(%)	10.8	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)		η down(%)	89.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
5	323.5	318.6	317.2	319.3	324.5	319.4	317.4	318.8	0- 5	7.691	7.691	0.66,0.66
10	318.9	310.3	308.9	311.6	320.6	311.9	309.4	310.8	5- 10	22.58	30.27	2.61,2.61
15	311.6	300.8	300.7	302.7	314.0	303.1	301.4	301.6	10- 15	36.52	66.79	5.75,5.75
20	301.6	290.1	292.4	292.6	304.5	293.1	293.3	291.3	15- 20	49.22	116.0	9.99,9.99
25	289.3	278.5	284.1	281.3	292.4	282.0	285.3	280.1	20- 25	60.47	176.5	15.2,15.2
30	274.8	266.1	275.9	269.1	278.0	270.1	277.3	268.2	25- 30	70.07	246.6	21.2,21.2
35	258.3	253.0	255.5	256.3	261.1	257.3	257.4	255.6	30- 35	77.53	324.1	27.9,27.9
40	239.9	238.1	235.2	241.4	242.3	242.8	237.5	241.3	35- 40	82.05	406.1	35.35
45	220.1	215.9	214.9	218.6	221.8	220.5	217.6	219.2	40- 45	83.93	490.1	42.2,42.2
50	199.0	193.7	194.6	196.3	199.9	198.4	197.6	197.4	45- 50	83.37	573.4	49.4,49.4
55	177.0	172.3	174.3	174.3	177.3	176.8	177.7	176.1	50- 55	80.62	654.1	56.3,56.3
60	155.2	151.4	153.9	153.1	154.8	155.8	157.8	155.4	55- 60	76.00	730.1	62.9,62.9
65	133.6	131.4	136.2	132.8	132.7	135.6	139.7	135.4	60- 65	69.96	800.0	68.9,68.9
70	113.2	113.0	118.5	113.9	111.9	116.9	121.6	116.8	65- 70	63.03	863.0	74.3,74.3
75	94.68	96.41	100.8	96.71	93.26	99.58	103.4	99.50	70- 75	55.47	918.5	79.1,79.1
80	78.12	80.33	83.07	80.00	76.74	82.80	85.28	82.70	75- 80	47.49	966.0	83.2,83.2
85	63.28	64.65	65.35	63.72	61.75	66.46	67.14	66.35	80- 85	39.21	1005	86.6,86.6
90	49.89	49.17	47.64	47.65	26.00	50.34	49.00	50.23	85- 90	30.46	1036	89.2,89.2
95	8.019	40.67	42.21	39.24	6.388	41.62	43.26	41.64	90- 95	22.79	1058	91.2,91.2
100	2.963	32.20	36.79	30.86	3.881	32.94	37.53	33.06	95-100	17.15	1076	92.7,92.7
105	1.821	23.88	31.37	22.69	1.936	24.32	31.80	24.55	100-105	12.34	1088	93.7,93.7
110	14.62	15.88	25.95	15.04	3.317	16.00	26.07	16.15	105-110	9.174	1097	94.5,94.5
115	14.39	12.69	20.53	12.27	12.70	12.60	20.34	12.45	110-115	7.719	1105	95.2,95.2
120	12.42	12.92	15.11	13.04	12.95	12.68	14.61	12.47	115-120	6.640	1111	95.7,95.7
125	12.34	13.36	15.76	13.71	12.73	12.87	15.02	12.74	120-125	6.176	1118	96.3,96.3
130	12.74	13.95	16.42	14.43	13.19	13.55	15.43	13.31	125-130	6.015	1124	96.8,96.8
135	13.22	14.76	17.07	15.31	13.72	14.36	15.84	14.15	130-135	5.842	1130	97.3,97.3
140	14.10	15.84	17.73	16.46	14.89	15.26	16.25	15.11	135-140	5.637	1135	97.8,97.8
145	15.94	16.79	18.38	17.38	16.70	15.89	16.65	16.01	140-145	5.395	1141	98.2,98.2
150	17.19	17.49	19.04	18.08	17.30	16.31	17.06	16.86	145-150	5.015	1146	98.7,98.7
155	17.46	18.07	19.03	18.50	18.16	17.35	17.35	17.47	150-155	4.454	1150	99.1,99.1
160	18.17	18.52	19.02	18.87	18.90	17.98	17.64	17.79	155-160	3.793	1154	99.4,99.4
165	18.75	18.82	19.01	19.08	19.38	18.49	17.94	18.10	160-165	3.045	1157	99.7,99.7
170	19.01	18.90	19.00	19.14	19.47	18.74	18.23	18.30	165-170	2.220	1159	99.8,99.8
175	18.87	18.86	19.00	19.04	19.14	18.77	18.52	18.40	170-175	1.345	1160	100,100
180	18.99	18.99	18.99	18.99	18.81	18.81	18.81	18.81	175-180	0.4499	1161	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

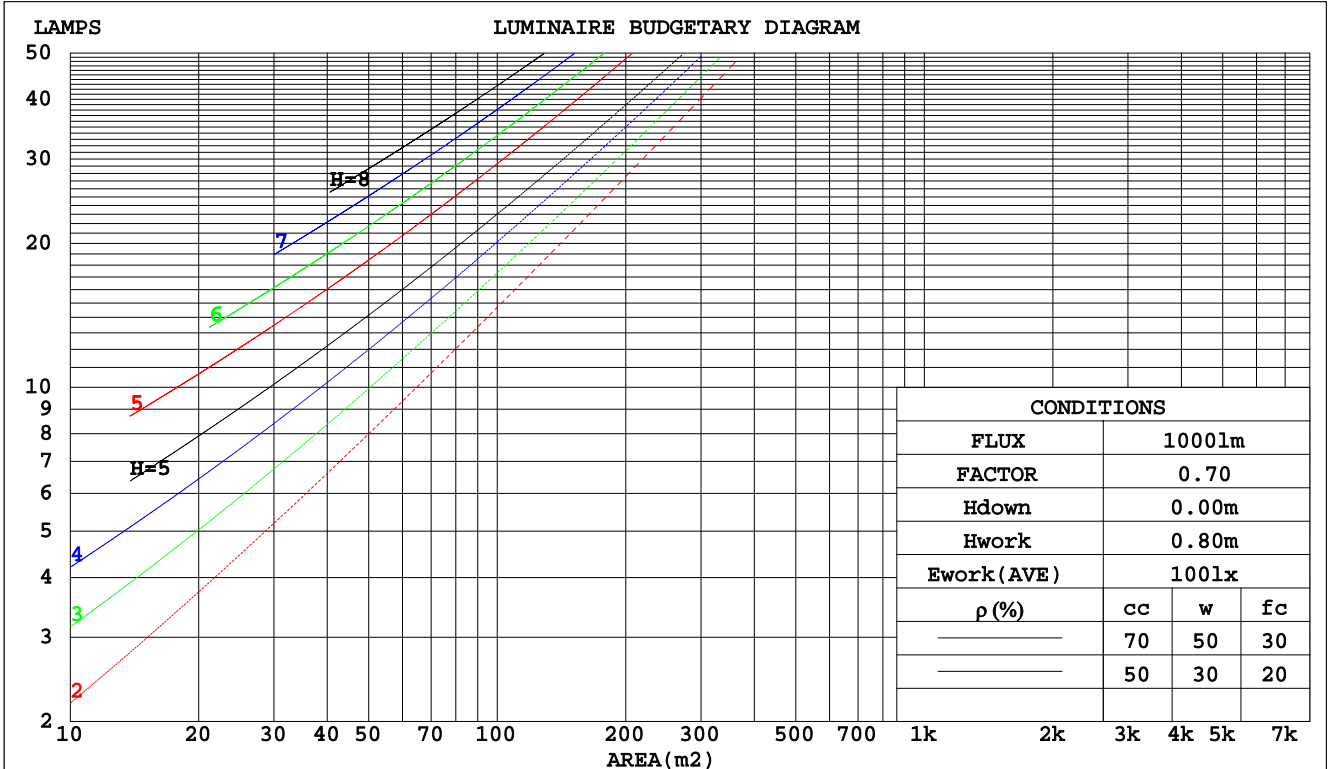
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.16	1.16	1.16	1.13	1.13	1.13	1.05	1.05	1.05	.98	.98	.98	.92	.92	.92	.89
1.0	.98	.93	.89	.95	.91	.86	.89	.85	.82	.83	.80	.77	.78	.75	.73	.70
2.0	.85	.77	.71	.82	.75	.69	.77	.71	.66	.72	.67	.63	.67	.63	.60	.57
3.0	.74	.65	.58	.71	.63	.57	.67	.60	.55	.63	.57	.52	.59	.54	.50	.47
4.0	.65	.56	.49	.63	.55	.48	.59	.52	.46	.56	.49	.44	.52	.47	.43	.40
5.0	.58	.49	.42	.56	.48	.41	.53	.45	.40	.50	.43	.38	.47	.41	.37	.34
6.0	.52	.43	.36	.51	.42	.36	.48	.40	.34	.45	.38	.33	.42	.37	.32	.30
7.0	.47	.38	.32	.46	.37	.31	.43	.36	.30	.41	.34	.29	.39	.33	.28	.26
8.0	.43	.34	.28	.42	.34	.28	.39	.32	.27	.37	.31	.26	.35	.30	.25	.23
9.0	.39	.31	.25	.38	.30	.25	.36	.29	.24	.34	.28	.24	.33	.27	.23	.21
10.0	.36	.28	.23	.35	.28	.23	.34	.27	.22	.32	.26	.21	.30	.25	.21	.19



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 9.646m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.364	.207	.065	.353	.201	.064	.333	.191	.061	.315	.182	.058	.299	.173	.056	
2.0	.321	.176	.054	.312	.172	.053	.294	.163	.051	.278	.156	.049	.263	.149	.047	
3.0	.288	.153	.046	.280	.150	.045	.264	.143	.043	.249	.137	.042	.236	.130	.040	
4.0	.261	.136	.040	.253	.133	.039	.239	.127	.038	.226	.121	.037	.214	.116	.035	
5.0	.238	.121	.035	.232	.119	.035	.219	.114	.034	.207	.109	.032	.195	.104	.031	
6.0	.219	.110	.031	.213	.108	.031	.201	.103	.030	.190	.099	.029	.180	.095	.028	
7.0	.203	.100	.028	.197	.098	.028	.187	.094	.027	.177	.091	.026	.167	.087	.026	
8.0	.188	.092	.026	.183	.090	.026	.174	.087	.025	.165	.083	.024	.156	.080	.023	
9.0	.176	.085	.024	.171	.083	.023	.162	.080	.023	.154	.077	.022	.146	.074	.021	
10.0	.165	.079	.022	.161	.078	.022	.153	.075	.021	.145	.072	.020	.138	.069	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.273	.273	.273	.233	.233	.233	.159	.159	.159	.091	.091	.091	.029	.029	.029	
1.0	.267	.239	.213	.228	.205	.183	.156	.141	.127	.090	.081	.074	.029	.026	.024	
2.0	.260	.215	.178	.222	.185	.154	.152	.128	.107	.088	.075	.063	.028	.024	.020	
3.0	.252	.198	.156	.216	.171	.135	.148	.119	.095	.086	.069	.056	.028	.023	.018	
4.0	.244	.185	.141	.209	.160	.122	.144	.112	.086	.083	.065	.051	.027	.021	.017	
5.0	.236	.175	.130	.203	.152	.114	.140	.106	.080	.081	.062	.048	.026	.020	.016	
6.0	.229	.167	.123	.197	.145	.107	.136	.101	.076	.079	.060	.045	.025	.020	.015	
7.0	.222	.161	.118	.191	.139	.103	.132	.098	.073	.077	.058	.043	.025	.019	.014	
8.0	.215	.155	.113	.185	.134	.099	.128	.094	.070	.075	.056	.042	.024	.018	.014	
9.0	.209	.150	.110	.180	.130	.096	.125	.092	.068	.073	.054	.041	.024	.018	.013	
10.0	.203	.146	.108	.175	.127	.094	.122	.089	.067	.071	.053	.040	.023	.017	.013	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm										
NAME:					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: P.Q.L., Inc.					SUR.:			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	11.9	13.3	12.3	13.7	14.1	11.9	13.4	12.3	13.7	14.2
3H	13.8	15.1	14.2	15.5	16.0	14.0	15.3	14.4	15.7	16.2
4H	14.8	16.1	15.3	16.5	17.0	15.0	16.3	15.5	16.7	17.2
6H	15.8	17.0	16.3	17.5	18.0	16.2	17.4	16.6	17.8	18.3
8H	16.4	17.6	16.9	18.0	18.6	16.7	17.9	17.2	18.4	18.9
12H	17.1	18.2	17.6	18.7	19.2	17.4	18.5	17.9	19.0	19.5
4H 2H	12.5	13.8	13.0	14.2	14.7	12.6	13.8	13.1	14.3	14.8
3H	14.7	15.8	15.2	16.3	16.8	14.8	16.0	15.4	16.4	17.0
4H	15.9	16.9	16.4	17.4	17.9	16.1	17.1	16.6	17.6	18.2
6H	17.1	18.0	17.7	18.5	19.1	17.4	18.3	17.9	18.8	19.4
8H	17.8	18.6	18.3	19.2	19.8	18.1	18.9	18.6	19.5	20.1
12H	18.5	19.3	19.1	19.9	20.5	18.8	19.6	19.4	20.2	20.8
8H 4H	16.3	17.2	16.9	17.7	18.4	16.5	17.4	17.1	17.9	18.5
6H	17.8	18.6	18.5	19.2	19.8	18.1	18.8	18.7	19.4	20.0
8H	18.7	19.3	19.3	20.0	20.6	18.9	19.6	19.5	20.2	20.9
12H	19.7	20.2	20.3	20.9	21.6	19.9	20.4	20.5	21.1	21.8
12H 4H	16.4	17.2	17.0	17.8	18.4	16.6	17.4	17.2	18.0	18.6
6H	18.1	18.7	18.7	19.3	20.0	18.3	18.9	18.9	19.5	20.2
8H	19.0	19.6	19.7	20.2	20.9	19.2	19.8	19.9	20.4	21.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 1161 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.5)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	40	33	51	39	32	49	39	32	25
0.80	61	49	41	60	48	41	57	47	40	32
1.00	69	57	49	67	56	48	64	57	47	39
1.25	76	64	56	74	63	56	70	61	54	45
1.50	81	70	62	79	68	61	75	66	59	50
2.00	88	78	70	85	76	69	81	73	67	57
2.50	92	83	76	89	81	74	84	77	71	60
3.00	96	87	81	93	85	79	87	81	76	64
4.00	100	93	87	97	91	85	91	86	81	69
5.00	103	97	92	100	94	89	93	89	85	72
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

490.07 lm

%lum = 42.2%

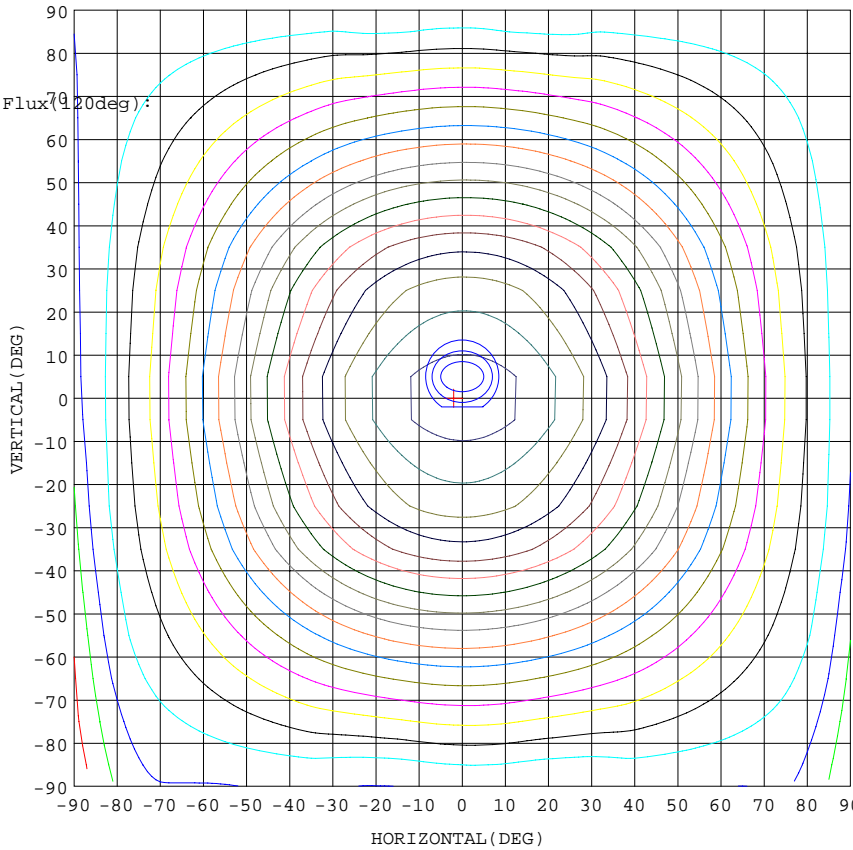
%lamp = 42.2%

Conical surface Flux(70deg):

730.06 lm

%lum = 62.9%

%lamp = 62.9%



- 5% 16.28
- 10% 32.55
- 15% 48.83
- 20% 65.10
- 25% 81.38
- 30% 97.65
- 35% 113.9
- 40% 130.2
- 45% 146.5
- 50% 162.8
- 55% 179.0
- 60% 195.3
- 65% 211.6
- 70% 227.9
- 75% 244.1
- 80% 260.4
- 85% 276.7
- 90% 293.0
- 95% 309.2

- 1. AVG=0,MIN=0
- 2. AVG=317.1,MIN=308.3
- 3. AVG=316.5,MIN=306.2

I_{max}:325.5(H=2.0,V0.0)
(At:C=180.0,Gamma=1.0)

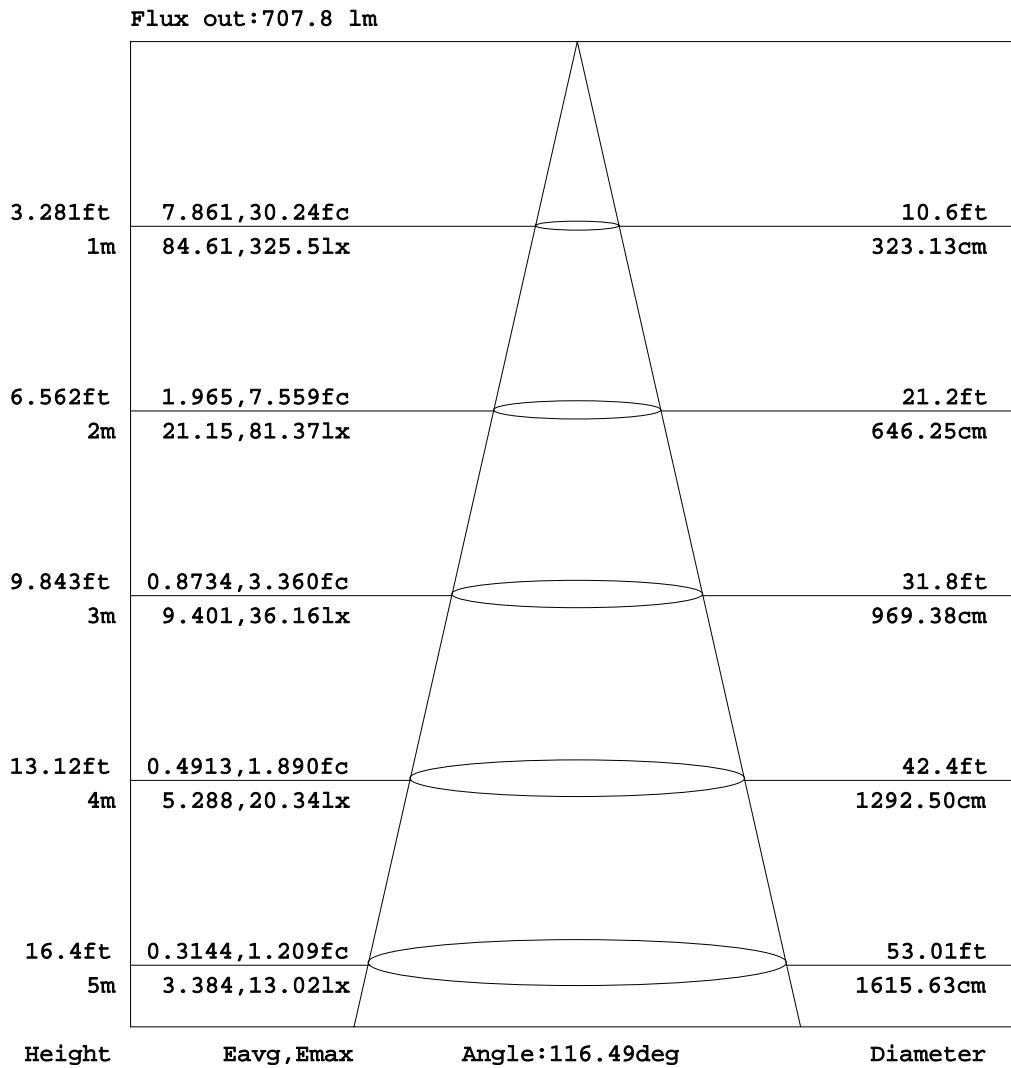
UNIT: cd

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-03-27

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
Humidity:65.0%
Test Distance:9.646m [K=1.0000]
Remarks:

AAI Figure

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:



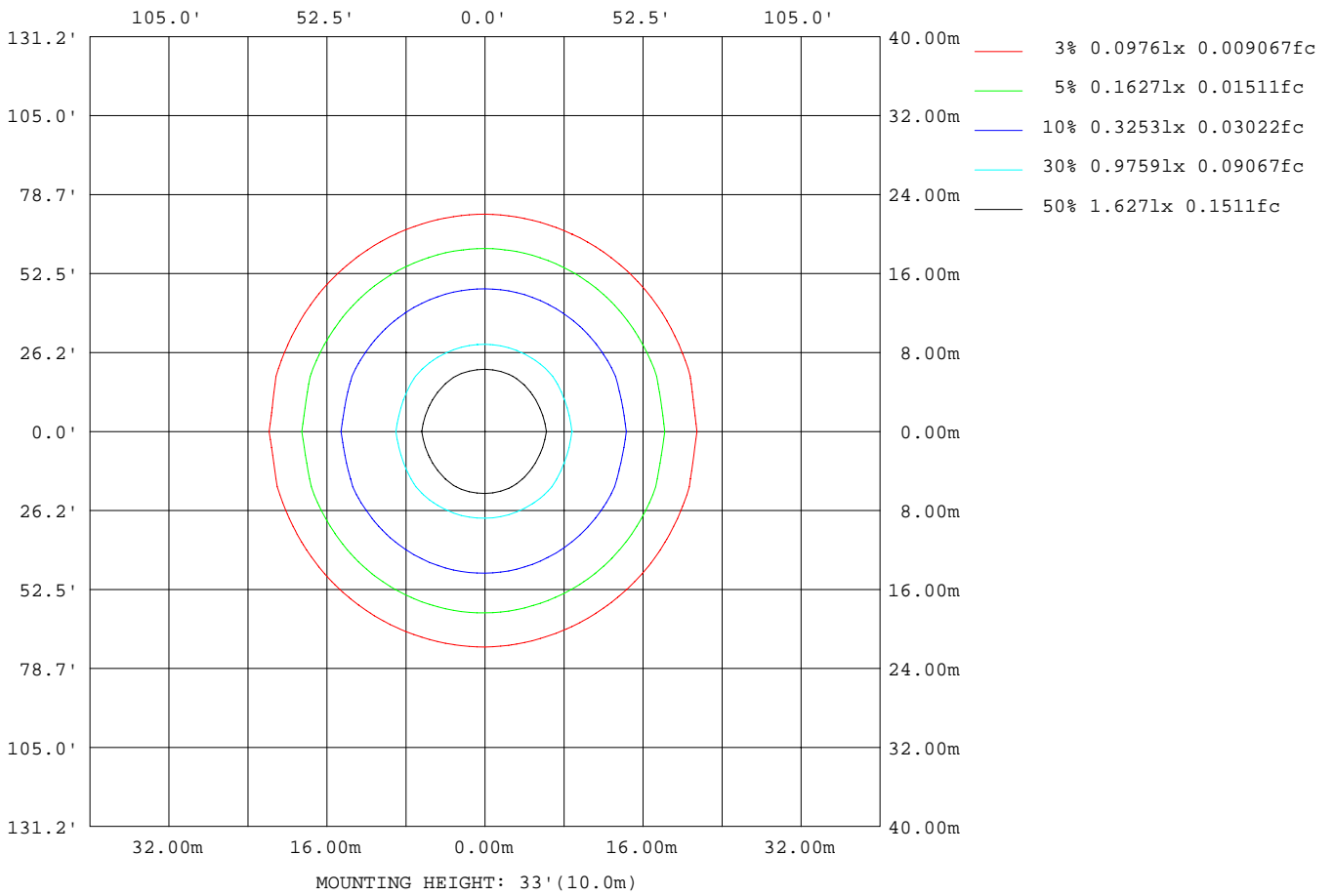
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

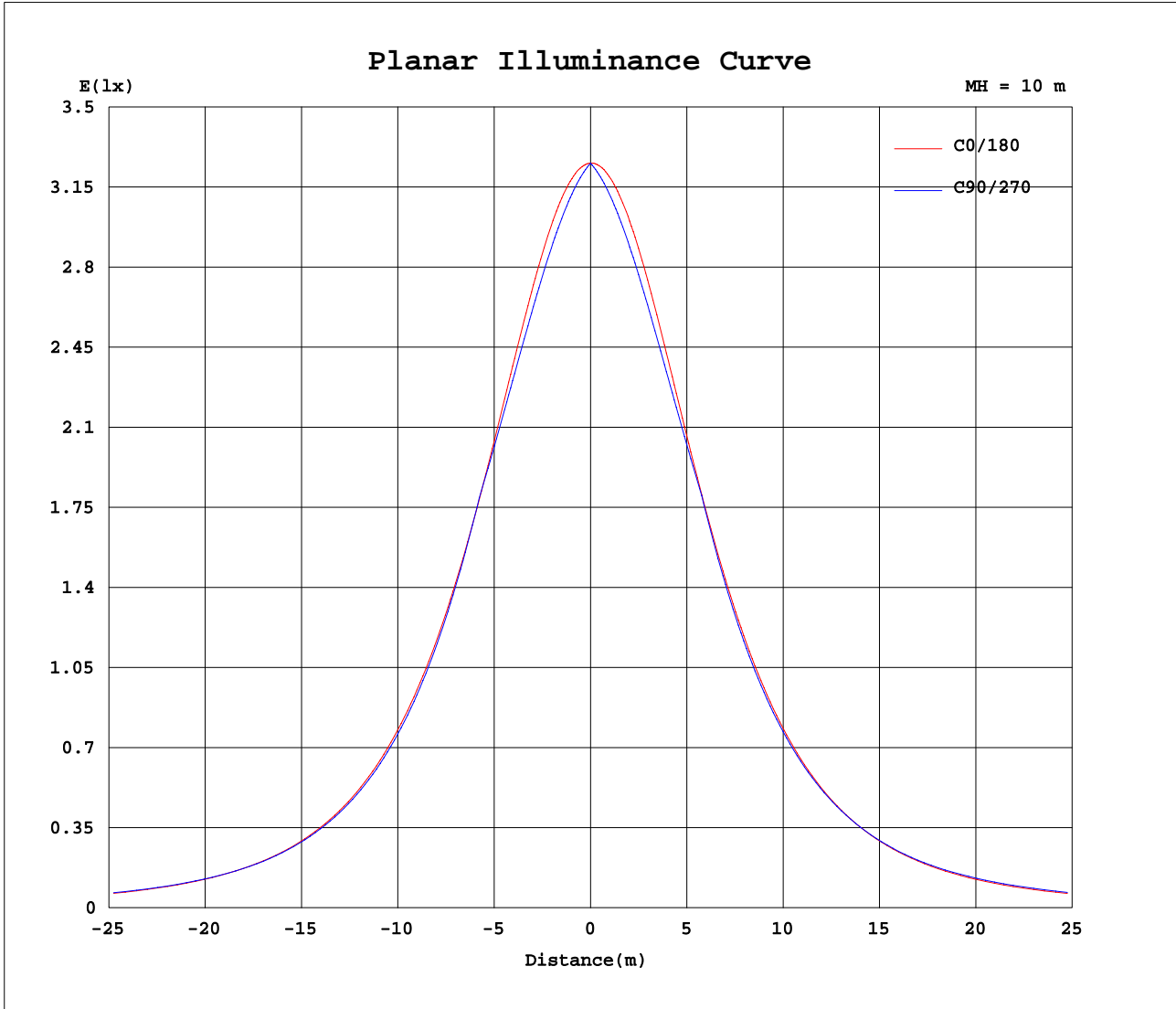
Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 9.646m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 9.646m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325
5	324	323	322	322	321	320	320	319	319	319	318	318	318	318	317	317	317	317	317
10	319	317	316	315	314	313	312	311	311	310	310	310	309	309	309	309	309	309	309
15	312	310	308	306	305	304	303	302	301	301	301	300	300	300	300	300	300	301	301
20	302	299	297	295	293	292	291	291	290	290	290	290	291	291	291	292	292	292	292
25	289	286	284	282	280	279	278	278	278	279	279	280	281	281	282	283	283	284	284
30	275	271	268	266	265	264	264	264	265	266	267	269	270	271	273	274	275	275	276
35	258	254	251	249	248	248	249	250	251	253	255	257	257	256	256	255	255	255	256
40	240	236	233	231	230	231	232	234	237	238	237	236	235	235	235	235	235	235	235
45	220	216	213	212	212	213	215	218	217	216	215	214	214	214	214	214	214	215	215
50	199	194	192	191	192	195	197	195	194	194	193	193	193	193	193	194	194	194	195
55	177	173	171	171	173	175	174	173	172	172	172	172	173	173	173	173	174	174	174
60	155	151	150	151	154	152	151	151	151	151	152	152	152	152	153	153	153	154	154
65	134	130	130	132	131	131	131	131	131	131	132	132	133	133	134	135	135	136	136
70	113	110	111	112	111	111	111	112	112	113	114	114	114	115	116	116	117	118	119
75	94.7	92.8	93.9	93.0	93.1	93.5	94.1	94.8	95.6	96.4	97.2	97.0	96.6	96.9	97.4	98.4	99.7	101	101
80	78.1	77.5	77.0	77.2	77.5	77.9	78.5	79.1	79.7	80.3	80.9	80.2	79.1	79.0	79.4	80.3	81.9	82.9	83.1
85	63.3	60.8	62.2	62.9	63.2	63.4	63.7	64.1	64.4	64.7	64.9	63.7	61.7	61.2	61.4	62.4	64.1	65.2	65.4
90	49.9	28.4	41.2	49.1	49.7	49.6	49.5	49.4	49.3	49.2	49.1	47.2	44.4	43.4	43.5	44.4	46.4	47.5	47.6
95	8.02	9.65	24.8	36.1	34.3	31.9	34.8	38.8	40.3	40.7	41.1	40.1	38.2	37.7	38.1	39.1	40.9	42.1	42.2
100	2.96	4.11	15.0	21.8	15.8	13.8	21.8	29.2	31.4	32.2	33.3	32.9	32.0	32.1	32.7	33.8	35.5	36.6	36.8
105	1.82	2.60	5.16	13.3	8.60	3.68	12.1	20.7	22.6	23.9	25.5	25.8	25.9	26.4	27.3	28.5	30.2	31.2	31.4
110	14.6	13.0	14.3	14.5	9.04	9.18	13.0	14.5	14.0	15.9	18.0	19.1	19.9	20.9	22.0	23.3	24.8	25.7	25.9
115	14.4	14.8	14.6	14.1	11.8	12.3	14.0	13.6	12.9	12.7	12.5	12.7	14.2	15.5	16.7	18.1	19.4	20.3	20.5
120	12.4	12.7	12.8	12.6	12.5	13.1	13.3	13.1	12.9	12.9	12.9	12.9	12.9	13.1	13.4	13.9	14.5	15.0	15.1
125	12.3	12.4	12.5	12.5	12.6	12.9	13.1	13.1	13.3	13.4	13.4	13.5	13.8	14.0	14.3	14.8	15.3	15.6	15.8
130	12.7	12.8	12.8	12.9	13.0	13.2	13.4	13.6	13.8	14.0	14.1	14.4	14.7	14.9	15.2	15.6	16.0	16.3	16.4
135	13.2	13.2	13.3	13.4	13.5	13.8	14.0	14.3	14.5	14.8	15.0	15.4	15.7	15.9	16.2	16.5	16.8	16.9	17.1
140	14.1	14.1	14.2	14.3	14.5	14.8	15.0	15.2	15.5	15.8	16.2	16.5	16.7	16.9	17.1	17.3	17.4	17.6	17.7
145	15.9	15.8	15.8	15.8	15.9	15.9	16.0	16.1	16.4	16.8	17.2	17.5	17.7	17.8	18.0	18.1	18.1	18.2	18.4
150	17.2	17.0	16.9	16.8	16.7	16.7	16.8	17.0	17.2	17.5	17.7	18.0	18.2	18.4	18.6	18.7	18.7	18.9	19.0
155	17.5	17.4	17.4	17.4	17.4	17.5	17.6	17.7	17.9	18.1	18.2	18.4	18.5	18.6	18.7	18.7	18.8	18.9	19.0
160	18.2	18.1	18.1	18.1	18.2	18.2	18.3	18.4	18.4	18.5	18.6	18.7	18.7	18.8	18.8	18.8	18.8	19.0	19.0
165	18.8	18.7	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.9	19.0	19.0
170	19.0	19.0	19.0	19.0	19.0	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8	18.8	18.8	18.9	19.0	19.0
175	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	19.0	19.0	19.0	19.0
180	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325
5	317	317	318	318	318	318	318	319	319	320	320	321	321	322	322	323	324	324	324
10	309	309	309	310	310	310	311	311	312	312	313	314	315	316	317	318	319	321	319
15	301	301	301	301	301	302	302	302	303	303	304	305	306	307	308	310	312	314	312
20	293	293	293	293	292	292	292	292	293	293	293	294	295	296	298	300	302	304	302
25	284	284	284	284	283	283	282	282	281	281	281	281	282	283	285	287	289	292	289
30	276	276	275	275	274	273	271	270	269	268	268	267	267	268	269	272	274	278	274
35	256	256	257	257	258	259	260	258	256	254	253	252	251	251	252	254	257	261	257
40	235	236	236	237	237	238	239	240	241	240	237	235	234	233	234	235	238	242	238
45	215	215	216	216	216	217	217	218	219	220	221	218	215	214	213	215	217	222	218
50	195	195	195	195	195	196	196	196	196	197	198	199	197	194	193	193	195	200	196
55	174	175	175	175	175	175	175	174	174	174	175	175	176	174	171	171	173	177	174
60	154	154	154	154	154	154	154	153	153	153	152	152	153	154	151	150	151	155	151
65	136	136	135	135	135	134	134	133	133	132	132	131	131	131	131	129	129	133	130
70	118	118	117	116	116	116	116	115	114	113	112	112	111	110	111	110	109	112	110
75	100	99.3	98.2	97.7	97.5	97.7	98.0	97.6	96.7	95.8	94.8	93.9	93.1	92.2	91.8	92.2	91.2	93.3	92.3
80	82.4	81.1	79.7	79.2	79.2	79.9	80.9	80.7	80.0	79.3	78.5	77.7	77.0	76.4	75.8	75.3	75.7	76.7	77.2
85	64.5	62.9	61.1	60.8	61.1	62.3	64.1	64.1	63.7	63.3	62.9	62.4	62.0	61.6	60.6	59.2	57.4	61.8	62.6
90	46.6	44.6	42.6	42.3	42.9	44.8	47.3	47.6	47.7	47.7	47.7	47.7	47.7	47.6	45.1	36.4	22.5	26.0	49.5
95	41.3	39.6	37.8	37.2	37.4	38.6	40.2	39.9	39.2	37.5	34.7	33.2	34.4	36.4	32.6	20.3	5.93	6.39	21.8
100	36.1	34.5	32.9	32.2	31.9	32.4	33.2	32.3	30.9	28.0	22.5	18.6	19.7	23.3	22.9	13.3	3.57	3.88	11.7
105	30.8	29.5	28.1	27.1	26.5	26.3	26.2	24.9	22.7	19.8	12.2	5.14	6.90	12.9	12.2	5.99	3.46	1.94	5.29
110	25.6	24.5	23.2	22.2	21.2	20.4	19.6	17.9	15.0	12.5	7.94	4.92	6.38	10.2	8.28	3.62	3.61	3.32	3.64
115	20.3	19.5	18.4	17.3	16.1	14.8	13.3	12.8	12.3	12.0	11.2	8.78	8.58	10.9	12.8	11.1	11.0	12.7	11.3
120	15.2	14.9	14.5	14.2	13.8	13.6	13.4	13.4	13.0	12.6	12.6	11.7	11.2	12.4	12.8	12.8	12.8	12.9	13.1
125	15.8	15.6	15.3	15.0	14.7	14.4	14.2	14.0	13.7	13.4	13.1	13.1	12.8	12.7	12.6	12.6	12.5	12.7	12.7
130	16.5	16.3	16.1	15.9	15.6	15.4	15.0	14.7	14.4	14.2	13.9	13.7	13.5	13.2	13.0	12.9	12.9	13.2	13.1
135	17.1	17.0	16.9	16.7	16.5	16.3	16.0	15.7	15.3	15.0	14.8	14.5	14.2	13.9	13.7	13.6	13.5	13.7	13.7
140	17.8	17.8	17.7	17.5	17.4	17.3	17.1	16.8	16.5	16.0	15.7	15.5	15.3	15.1	14.9	14.7	14.6	14.9	14.8
145	18.4	18.5	18.4	18.3	18.3	18.2	18.1	17.8	17.4	17.0	16.6	16.5	16.4	16.4	16.4	16.5	16.5	16.7	16.4
150	19.0	19.1	19.0	18.9	18.8	18.6	18.5	18.3	18.1	17.8	17.6	17.3	17.2	17.1	17.1	17.2	17.3	17.3	17.1
155	19.0	19.1	19.1	19.0	19.0	18.9	18.8	18.6	18.5	18.4	18.3	18.1	18.0	17.9	17.9	17.9	17.9	18.2	18.0
160	19.0	19.0	19.1	19.1	19.1	19.0	19.0	18.9	18.9	18.8	18.7	18.7	18.6	18.6	18.6	18.5	18.5	18.9	18.7
165	19.0	19.0	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.4	19.2
170	19.0	19.0	19.0	19.0	19.1	19.1	19.1	19.1	19.1	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.5	19.4
175	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
180	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.8	18.8

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325
5	323	322	322	321	321	320	320	319	319	319	318	318	318	318	318	317	317	317	317
10	318	317	316	315	314	313	312	312	311	311	311	310	310	310	310	310	309	309	309
15	310	309	307	306	305	304	304	303	303	302	302	302	302	302	302	302	301	301	301
20	300	298	296	295	294	294	293	293	293	293	293	293	293	293	293	293	293	293	293
25	287	285	283	283	282	282	282	282	282	283	284	284	285	285	285	285	285	285	285
30	272	270	269	268	268	268	269	270	271	272	274	275	276	276	277	277	277	277	277
35	255	253	252	252	253	254	256	257	259	261	261	260	259	258	258	258	258	257	257
40	236	234	234	235	236	239	241	243	241	241	240	239	238	238	238	238	237	237	237
45	215	215	215	217	220	223	222	221	220	219	219	218	218	218	218	218	218	218	217
50	194	194	196	199	201	200	199	198	198	198	198	198	198	198	198	198	198	198	198
55	172	173	176	179	178	177	177	177	177	177	177	177	178	178	178	178	178	178	178
60	151	153	156	155	155	155	155	156	156	157	157	157	157	158	158	158	158	158	158
65	130	134	133	133	134	134	135	136	136	137	137	138	138	139	139	140	140	140	139
70	112	113	113	113	114	115	116	117	118	119	119	120	120	120	121	121	122	121	121
75	94.2	93.9	94.6	95.6	96.6	97.5	98.5	99.6	101	101	102	101	101	102	103	103	103	103	102
80	77.3	78.1	78.9	79.4	80.2	81.1	81.9	82.8	83.6	84.4	84.7	83.4	83.1	83.5	84.5	85.2	85.3	84.7	83.6
85	63.4	63.6	64.0	64.3	64.8	65.3	65.9	66.5	67.0	67.5	67.6	65.6	64.8	65.2	66.3	67.1	67.1	66.5	65.2
90	49.8	50.1	50.0	50.0	50.0	50.0	50.2	50.3	50.5	50.7	50.5	47.8	46.6	46.8	48.0	48.9	49.0	48.2	46.7
95	31.7	36.6	37.9	36.3	35.0	36.3	39.4	41.6	42.2	42.8	43.2	41.4	40.7	41.1	42.4	43.2	43.3	42.6	41.3
100	19.1	24.2	24.4	21.1	19.6	23.4	29.5	32.9	34.0	34.9	35.8	34.9	34.9	35.5	36.7	37.4	37.5	37.0	35.8
105	6.81	12.5	13.9	7.69	5.13	12.5	20.9	24.3	26.0	27.2	28.5	28.5	29.1	29.9	31.0	31.6	31.8	31.4	30.4
110	3.72	8.67	10.8	6.58	4.72	8.23	13.6	16.0	18.0	19.8	21.5	22.3	23.3	24.4	25.3	25.8	26.1	25.8	25.0
115	11.4	13.2	11.0	8.57	8.83	11.7	13.0	12.6	11.9	12.6	14.7	16.3	17.7	18.9	19.7	20.1	20.3	20.2	19.5
120	13.0	12.9	12.5	11.2	11.9	13.2	12.9	12.7	12.4	12.8	13.2	13.5	13.9	14.4	14.4	14.4	14.6	14.7	14.5
125	12.7	12.7	12.8	12.8	13.2	13.1	13.1	12.9	13.1	13.5	13.8	14.0	14.2	14.9	14.8	14.8	15.0	15.2	15.0
130	13.1	13.1	13.2	13.4	13.4	13.4	13.4	13.6	13.9	14.2	14.3	14.7	14.7	15.3	15.2	15.3	15.4	15.6	15.6
135	13.7	13.7	13.8	13.9	14.0	14.0	14.2	14.4	14.7	14.8	14.7	15.2	15.4	15.7	15.6	15.7	15.8	16.1	16.1
140	14.7	14.7	14.8	14.9	14.9	14.9	15.0	15.3	15.3	15.1	15.6	15.6	16.0	16.0	16.1	16.2	16.2	16.5	16.6
145	16.2	16.0	15.9	15.8	15.7	15.8	15.9	15.9	15.6	16.0	16.1	16.2	16.4	16.5	16.5	16.6	16.7	16.9	17.1
150	16.9	16.8	16.7	16.7	16.7	16.6	16.5	16.3	16.7	16.7	16.7	16.8	16.9	16.9	17.0	17.0	17.1	17.3	17.5
155	17.8	17.7	17.6	17.4	17.3	17.2	17.4	17.4	17.3	17.3	17.4	17.4	17.4	17.4	17.3	17.3	17.4	17.4	17.6
160	18.6	18.4	18.3	18.2	18.2	18.1	18.0	18.0	18.0	17.9	17.9	17.8	17.8	17.7	17.7	17.7	17.6	17.7	17.8
165	19.1	19.0	18.9	18.8	18.7	18.6	18.6	18.5	18.4	18.3	18.3	18.2	18.1	18.0	18.0	18.0	17.9	17.9	18.0
170	19.3	19.2	19.1	19.0	19.0	18.9	18.8	18.7	18.7	18.6	18.5	18.4	18.4	18.3	18.3	18.2	18.2	18.2	18.2
175	19.1	19.0	19.0	18.9	18.9	18.9	18.8	18.8	18.7	18.7	18.6	18.6	18.6	18.6	18.5	18.5	18.5	18.5	18.5
180	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.2V I:0.1471A P:15.78W PF:0.8929 Lamp Flux:1160.89x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: P.Q.L., Inc.	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	325	325	325	325	325	325	325	325	325	325	325	325	325	325	325				
5	318	318	318	318	318	318	319	319	320	320	321	321	322	322	323				
10	309	309	310	310	310	310	311	311	312	313	313	314	315	316	318				
15	301	301	301	301	301	301	302	302	303	303	304	305	306	308	310				
20	293	292	292	292	292	291	291	291	292	292	293	294	295	297	299				
25	284	284	283	282	281	281	280	280	279	280	280	281	282	284	286				
30	276	275	274	272	271	269	268	267	266	266	266	266	267	269	271				
35	258	258	259	259	260	258	256	254	252	251	250	250	250	252	255				
40	238	238	238	238	239	240	241	240	237	235	233	232	232	234	236				
45	217	217	217	218	218	218	219	220	222	218	216	214	213	214	216				
50	197	197	197	197	197	197	197	198	199	200	198	195	193	193	195				
55	177	177	177	177	176	176	176	176	176	177	178	176	173	172	173				
60	158	157	157	156	156	156	155	155	155	155	155	156	153	151	152				
65	139	138	138	137	136	136	135	135	134	134	133	134	134	131	131				
70	120	119	119	119	119	118	117	116	115	114	114	113	113	112	111				
75	101	101	101	101	101	100	99.5	98.5	97.6	96.8	95.9	95.0	94.5	94.9	93.3				
80	82.9	82.4	82.6	84.2	84.1	83.4	82.7	82.0	81.3	80.5	79.8	79.2	78.5	77.9	77.9				
85	64.4	64.0	64.6	67.1	67.2	66.8	66.4	66.0	65.6	65.2	64.8	64.4	64.0	63.7	63.1				
90	45.9	45.7	46.6	50.0	50.4	50.3	50.2	50.3	50.3	50.4	50.5	50.5	50.5	50.4	50.3				
95	40.4	39.8	40.2	42.5	42.5	42.0	41.6	41.4	39.7	35.2	32.9	35.4	37.1	33.2	24.8				
100	34.8	34.0	33.8	35.0	34.7	33.9	33.1	32.6	30.3	22.0	14.5	17.4	21.9	17.5	10.0				
105	29.4	28.2	27.5	27.7	26.9	25.8	24.5	23.7	22.3	12.3	3.21	9.69	14.1	5.15	3.06				
110	23.9	22.6	21.4	20.5	19.2	17.7	16.2	14.8	15.9	13.8	9.06	9.14	15.0	14.5	13.2				
115	18.5	17.0	15.4	13.8	11.8	11.7	12.5	13.3	14.3	14.9	12.7	11.9	14.3	15.0	15.2				
120	14.1	13.4	12.8	12.3	12.1	12.1	12.5	12.9	13.4	13.6	13.3	12.6	12.7	12.9	12.9				
125	14.7	14.2	13.7	13.2	12.8	12.6	12.7	12.9	13.1	13.1	12.7	12.4	12.4	12.4	12.4				
130	15.4	15.0	14.6	14.1	13.7	13.5	13.3	13.3	13.3	13.2	13.0	12.9	12.7	12.7	12.7				
135	16.0	15.7	15.4	15.1	14.7	14.3	14.2	14.0	13.9	13.8	13.6	13.4	13.3	13.2	13.1				
140	16.5	16.3	16.2	16.1	15.7	15.4	15.1	14.9	14.8	14.7	14.5	14.3	14.2	14.1	14.0				
145	17.1	17.0	16.9	16.9	16.8	16.4	16.0	15.7	15.6	15.5	15.5	15.5	15.6	15.6	15.7				
150	17.5	17.4	17.3	17.3	17.2	17.1	16.9	16.6	16.4	16.3	16.3	16.3	16.4	16.6	16.7				
155	17.7	17.7	17.6	17.6	17.5	17.5	17.5	17.4	17.3	17.2	17.1	17.1	17.1	17.2	17.3				
160	17.8	17.9	17.9	17.9	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.9	17.9	17.9				
165	18.0	18.0	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.2	18.2	18.3	18.3				
170	18.2	18.2	18.2	18.2	18.2	18.3	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.5	18.5				
175	18.5	18.5	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.5	18.5				
180	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8				

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-03-27

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:9.646m [K=1.0000]
 Remarks: