

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P936912

Luminaire Tested: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936912
REPORT IS A COMBINATION OF REPORTS P933488 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

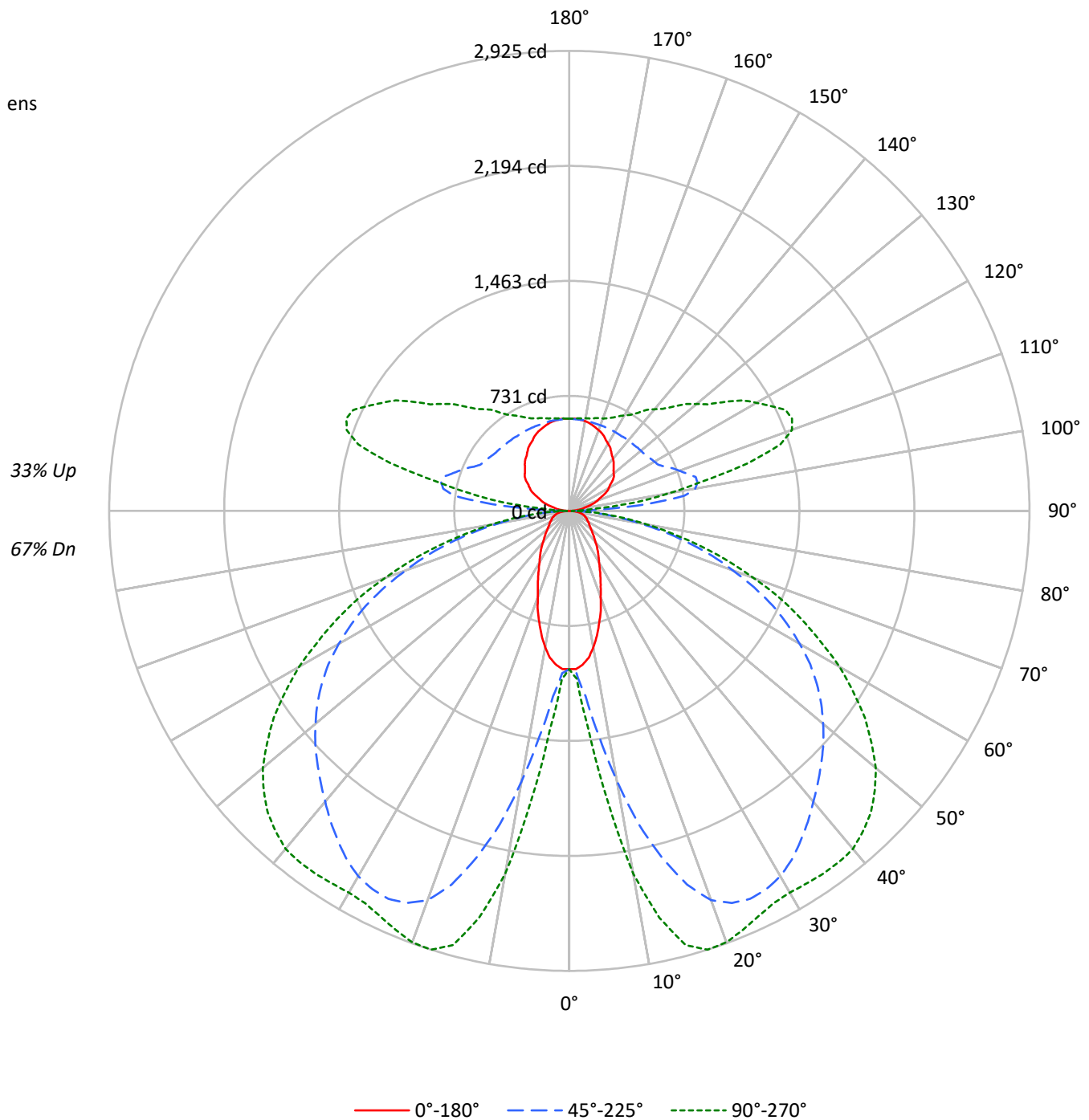
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11593.4 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 112
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P936912
CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P936912

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4669	4669	4669
5°	4561	5396	6276
10°	4137	7866	10404
15°	3516	10277	12563
20°	2863	11909	12803
25°	2388	12463	12543
30°	2014	12541	12519
35°	1780	12333	12843
40°	1552	12062	13178
45°	1405	11864	13229
50°	1289	11686	13010
55°	1235	11424	12434
60°	1263	10922	11523
65°	1314	10160	10272
70°	1401	8860	8678
75°	1552	7225	6772
80°	1697	5010	4563
85°	1504	2659	2336

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13229 cd/sqm



TEST NUMBER: P936912

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	1.1
10°-20°	576.9	5.0
20°-30°	1009.1	8.7
30°-40°	1299.0	11.2
40°-50°	1451.0	12.5
50°-60°	1389.7	12.0
60°-70°	1101.3	9.5
70°-80°	647.6	5.6
80°-90°	182.2	1.6
90°-100°	286.2	2.5
100°-110°	752.5	6.5
110°-120°	780.3	6.7
120°-130°	625.9	5.4
130°-140°	491.1	4.2
140°-150°	376.9	3.3
150°-160°	271.4	2.3
160°-170°	166.1	1.4
170°-180°	56.1	0.5
0°-30°	1716.2	14.8
0°-40°	3015.2	26.0
0°-60°	5855.9	50.5
0°-90°	7787.0	67.2
90°-120°	1819.0	15.7
90°-150°	3312.8	28.6
90°-180°	3806.0	32.8
0°-180°	11593.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	980	1052	1184	1340	1388	90
15°	734	1356	2284	2770	2857	204
25°	469	1537	2721	2841	2844	216
35°	317	1469	2563	2708	2815	198
45°	217	1171	2265	2595	2712	168
55°	155	744	1922	2233	2294	142
65°	123	395	1427	1605	1628	122
75°	91	243	783	861	864	95
85°	32	74	194	214	217	34
90°	4	11	30	15	15	5
95°	38	148	493	254	173	42
105°	136	205	832	1263	1178	144
115°	241	292	666	1329	1517	238
125°	335	376	606	1024	1208	297
135°	399	439	587	827	938	309
145°	463	493	580	705	761	290
155°	523	538	580	636	655	240
165°	565	572	580	603	610	159
175°	587	587	584	591	591	56
180°	587	587	587	587	587	



TEST NUMBER: P936912
 CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3
2.5°	1006.3	1006.3	1012.8	1016.0	1022.4	1025.7	1032.2	1038.7	1058.1	1061.4	1067.8
5°	980.4	993.4	1035.4	1051.6	1096.9	1158.4	1184.3	1226.4	1313.6	1339.5	1355.7
7.5°	941.6	970.7	1074.3	1100.2	1213.4	1375.2	1443.1	1533.7	1672.8	1740.8	1795.8
10°	880.1	941.6	1126.0	1187.4	1372.0	1617.8	1744.0	1870.2	2080.5	2174.4	2210.0
12.5°	812.1	912.5	1181.0	1265.2	1530.5	1889.6	2041.7	2180.8	2420.3	2546.5	2565.9
15°	734.5	870.4	1232.8	1355.7	1698.7	2116.1	2284.4	2455.9	2679.2	2769.7	2792.4
17.5°	666.5	838.0	1281.3	1410.8	1828.2	2320.0	2491.4	2633.9	2815.0	2876.5	2892.7
20°	582.4	786.3	1313.6	1481.9	1964.1	2468.9	2633.9	2743.8	2866.9	2905.7	2912.1
22.5°	520.9	731.2	1333.1	1507.8	2054.6	2559.4	2698.6	2785.9	2870.0	2883.0	2886.3
25°	469.2	669.8	1329.9	1537.0	2132.4	2614.5	2721.3	2785.9	2834.4	2840.9	2840.9
27.5°	420.6	601.8	1316.9	1543.5	2190.6	2627.4	2711.5	2756.8	2779.5	2792.4	2792.4
30°	378.6	537.1	1284.6	1530.5	2216.5	2614.5	2682.3	2705.0	2727.7	2747.1	2756.8
32.5°	346.3	475.6	1236.0	1504.6	2219.6	2582.1	2630.6	2643.5	2675.9	2721.3	2737.4
35°	317.1	414.1	1181.0	1469.0	2200.2	2530.3	2562.7	2575.6	2640.3	2708.3	2730.9
37.5°	287.9	368.8	1109.8	1407.5	2171.2	2468.9	2491.4	2514.1	2614.5	2695.3	2721.3
40°	258.9	330.0	1025.7	1339.5	2125.9	2394.4	2413.8	2449.4	2582.1	2675.9	2701.8
42.5°	236.2	297.7	935.2	1268.4	2067.6	2310.3	2339.4	2391.1	2543.2	2643.5	2672.7
45°	216.8	265.3	838.0	1171.3	1993.2	2222.9	2265.0	2336.2	2497.9	2595.1	2620.9
47.5°	197.4	242.6	737.7	1071.0	1912.3	2135.5	2190.6	2271.5	2436.5	2530.3	2553.0
50°	181.2	220.1	637.5	964.2	1824.9	2041.7	2106.5	2190.6	2358.8	2446.2	2475.3
52.5°	168.3	200.6	543.6	857.4	1724.6	1944.6	2019.1	2106.5	2265.0	2349.1	2368.5
55°	155.4	184.4	462.7	744.2	1621.1	1841.1	1922.0	2006.2	2161.4	2232.6	2245.5
57.5°	148.8	171.5	394.7	637.5	1511.1	1724.6	1815.3	1892.9	2038.5	2093.4	2106.5
60°	139.1	161.8	343.0	546.8	1391.4	1614.6	1692.2	1769.9	1892.9	1938.2	1947.8
62.5°	129.4	155.4	304.2	459.5	1268.4	1485.1	1562.9	1634.0	1737.5	1769.9	1782.8
65°	122.9	148.8	275.0	394.7	1142.2	1349.3	1426.9	1488.4	1572.5	1604.9	1611.3
67.5°	116.4	142.3	252.4	339.8	1016.0	1213.4	1271.6	1329.9	1394.6	1426.9	1430.2
70°	106.8	135.9	233.0	300.9	886.6	1058.1	1106.6	1168.0	1219.9	1236.0	1245.8
72.5°	100.3	126.2	220.1	271.8	753.9	909.3	954.6	990.1	1035.4	1051.6	1051.6
75°	90.6	113.3	207.1	242.6	618.1	744.2	783.1	818.6	854.2	860.7	851.0
77.5°	80.9	100.3	178.0	203.8	482.1	588.9	621.2	640.7	669.8	676.3	679.5
80°	68.0	87.4	139.1	158.5	349.4	433.5	456.2	472.5	498.3	498.3	504.8
82.5°	51.8	68.0	100.3	113.3	236.2	297.7	317.1	326.8	343.0	343.0	343.0
85°	32.3	42.1	64.7	74.4	142.3	181.2	194.2	197.4	210.3	213.6	213.6
87.5°	16.2	22.7	42.1	45.3	74.4	93.9	93.9	100.3	100.3	97.0	93.9
90°	3.9	7.1	10.2	11.0	17.3	25.7	29.9	26.6	20.0	15.0	15.0
92.5°	15.8	42.5	69.4	76.1	107.0	148.1	168.6	147.8	106.1	74.9	71.9
95°	37.9	86.9	135.9	148.2	263.1	416.3	493.0	440.0	333.8	254.2	245.2
97.5°	65.4	108.6	151.9	162.7	354.4	609.9	737.7	704.2	637.1	586.8	569.6
100°	86.7	125.9	165.1	174.9	387.7	671.2	813.0	815.5	820.3	824.0	803.5
102.5°	104.9	141.5	178.0	187.2	402.9	690.5	834.3	877.0	962.5	1026.6	1009.1
105°	135.6	166.5	197.6	205.3	414.2	692.7	831.9	927.7	1119.4	1263.1	1253.6
107.5°	167.1	196.0	224.9	232.1	416.2	661.8	784.6	918.2	1185.5	1386.0	1388.3
110°	188.3	214.4	240.6	247.1	413.2	634.5	745.2	894.6	1193.4	1417.5	1427.3



TEST NUMBER: P936912

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	209.3	234.1	259.0	265.2	413.3	610.7	709.4	862.2	1168.0	1397.4	1412.5
115°	240.8	263.8	286.7	292.4	417.1	583.4	666.4	813.7	1108.3	1329.2	1350.1
117.5°	271.9	292.7	313.6	318.8	424.8	566.1	636.8	769.8	1035.6	1235.1	1258.2
120°	290.1	309.6	329.3	334.2	431.2	560.4	625.0	746.4	989.4	1171.6	1194.0
122.5°	307.7	327.5	347.3	352.3	440.1	557.3	616.0	725.3	944.1	1108.2	1130.4
125°	335.0	353.0	371.0	375.5	452.4	554.9	606.1	699.0	884.9	1024.3	1044.7
127.5°	357.1	375.2	393.4	398.0	464.6	553.4	597.8	677.6	837.2	956.9	974.1
130°	368.8	388.4	408.1	413.0	473.5	554.3	594.6	665.7	807.7	914.2	930.2
132.5°	381.1	400.7	420.4	425.2	480.8	554.9	592.0	655.5	782.7	878.0	892.2
135°	399.2	417.1	434.9	439.4	488.6	554.3	587.2	640.4	746.9	826.7	839.1
137.5°	417.8	435.5	453.1	457.5	500.5	557.7	586.4	631.4	721.5	789.0	799.0
140°	433.1	449.4	465.7	469.8	507.7	558.3	583.6	622.5	700.3	758.6	768.0
142.5°	444.9	459.9	475.0	478.8	513.8	560.3	583.6	617.8	686.1	737.4	745.5
145°	463.1	476.2	489.4	492.6	521.7	560.4	579.7	607.6	663.6	705.4	711.6
147.5°	481.2	494.0	506.8	509.9	533.2	564.2	579.7	601.7	645.6	678.6	683.6
150°	493.0	504.6	516.1	519.0	539.3	566.2	579.7	598.3	635.5	663.3	667.4
152.5°	505.2	514.0	522.7	524.9	543.2	567.6	579.7	595.6	627.2	651.0	654.2
155°	523.3	529.8	536.3	537.9	551.9	570.4	579.7	592.3	617.5	636.4	638.5
157.5°	536.7	543.0	549.3	550.9	560.5	573.3	579.7	589.5	609.1	623.8	625.2
160°	545.8	550.8	555.6	556.9	564.5	574.7	579.7	588.1	604.9	617.5	618.3
162.5°	554.9	558.6	562.2	563.2	568.7	576.1	579.7	586.8	601.0	611.6	612.4
165°	564.7	568.1	571.3	572.2	574.7	578.0	579.7	584.8	594.9	602.6	603.4
167.5°	573.8	575.3	576.9	577.3	579.4	582.2	583.6	587.0	593.7	598.6	599.0
170°	579.7	581.2	582.9	583.3	583.4	583.5	583.6	587.0	593.7	598.6	598.6
172.5°	582.9	583.3	583.5	583.6	583.6	583.6	583.6	586.3	591.6	595.5	595.2
175°	587.2	587.2	587.2	587.2	586.0	584.4	583.6	585.3	588.6	591.1	591.1
177.5°	587.2	587.2	587.2	587.2	586.2	585.0	584.4	585.7	588.3	590.3	589.9
180°	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2	587.2



TEST NUMBER: P936912

CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1006.3	1006.3
2.5°	1074.3	1067.8
5°	1381.6	1388.1
7.5°	1860.5	1857.3
10°	2313.5	2342.7
12.5°	2643.5	2650.0
15°	2844.2	2857.1
17.5°	2921.8	2925.1
20°	2925.1	2918.6
22.5°	2889.5	2883.0
25°	2847.4	2844.2
27.5°	2808.5	2811.8
30°	2792.4	2802.1
32.5°	2792.4	2808.5
35°	2798.9	2815.0
37.5°	2795.6	2815.0
40°	2782.7	2805.4
42.5°	2747.1	2763.3
45°	2692.1	2711.5
47.5°	2620.9	2633.9
50°	2530.3	2543.2
52.5°	2417.1	2420.3
55°	2281.1	2294.1
57.5°	2135.5	2138.8
60°	1973.8	1983.5
62.5°	1802.3	1802.3
65°	1621.1	1627.6
67.5°	1433.4	1449.6
70°	1242.5	1245.8
72.5°	1054.9	1054.9
75°	860.7	863.9
77.5°	676.3	676.3
80°	501.5	504.8
82.5°	346.3	352.7
85°	216.8	216.8
87.5°	100.3	90.6
90°	15.0	15.0
92.5°	59.9	48.1
95°	209.1	173.0
97.5°	500.9	432.3
100°	721.8	639.9
102.5°	939.0	868.9
105°	1215.9	1178.3
107.5°	1397.4	1406.5
110°	1466.5	1505.8



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CATALOG NUMBER: SQ4-FB-050U-125D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1472.7	1532.9
115°	1433.6	1517.2
117.5°	1350.9	1443.6
120°	1284.1	1374.2
122.5°	1219.2	1308.0
125°	1126.5	1208.3
127.5°	1043.1	1112.1
130°	994.0	1057.7
132.5°	949.4	1006.5
135°	888.3	937.5
137.5°	839.4	879.6
140°	805.6	843.3
142.5°	777.8	810.2
145°	736.1	760.6
147.5°	704.0	724.4
150°	683.8	700.3
152.5°	666.6	679.0
155°	646.7	655.0
157.5°	631.1	636.8
160°	621.7	625.0
162.5°	615.6	618.7
165°	606.7	610.0
167.5°	600.4	601.8
170°	598.6	598.6
172.5°	594.0	592.7
175°	591.1	591.1
177.5°	588.6	587.2
180°	587.2	587.2



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference 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	7.79	8.88	8.57	9.70	10.70	20.97	22.06	21.75	22.88	23.88
	3H	8.51	9.50	9.31	10.32	11.35	22.82	23.81	23.62	24.63	25.66
	4H	8.82	9.75	9.63	10.58	11.62	23.48	24.41	24.29	25.25	26.28
	6H	9.08	9.94	9.91	10.78	11.84	23.92	24.78	24.75	25.62	26.68
	8H	9.16	9.98	9.99	10.84	11.89	24.05	24.87	24.89	25.73	26.79
	12H	9.18	9.97	10.03	10.82	11.90	24.12	24.91	24.97	25.76	26.85
4H	2H	15.03	15.96	15.85	16.80	17.84	21.27	22.20	22.09	23.03	24.07
	3H	16.62	17.40	17.45	18.27	19.32	23.33	24.12	24.17	24.98	26.04
	4H	16.72	17.44	17.57	18.30	19.38	24.11	24.83	24.96	25.69	26.77
	6H	16.75	17.37	17.61	18.26	19.34	24.66	25.29	25.53	26.17	27.26
	8H	16.73	17.31	17.60	18.20	19.29	24.83	25.41	25.70	26.30	27.40
	12H	16.70	17.22	17.59	18.13	19.23	24.94	25.46	25.82	26.37	27.47
8H	4H	18.19	18.77	19.05	19.65	20.75	24.19	24.77	25.06	25.66	26.76
	6H	18.44	18.92	19.34	19.85	20.95	24.83	25.32	25.73	26.24	27.34
	8H	18.46	18.89	19.37	19.81	20.93	25.06	25.48	25.96	26.40	27.52
	12H	18.44	18.82	19.35	19.73	20.90	25.21	25.59	26.12	26.50	27.67
12H	4H	18.34	18.87	19.23	19.77	20.88	24.16	24.68	25.04	25.58	26.69
	6H	18.70	19.13	19.61	20.05	21.17	24.82	25.25	25.72	26.17	27.28
	8H	18.78	19.16	19.69	20.07	21.24	25.06	25.44	25.97	26.35	27.52