

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: P936909

Luminaire Tested: SQ4-FB-050U-125D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936909
REPORT IS A COMBINATION OF REPORTS P933464 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-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

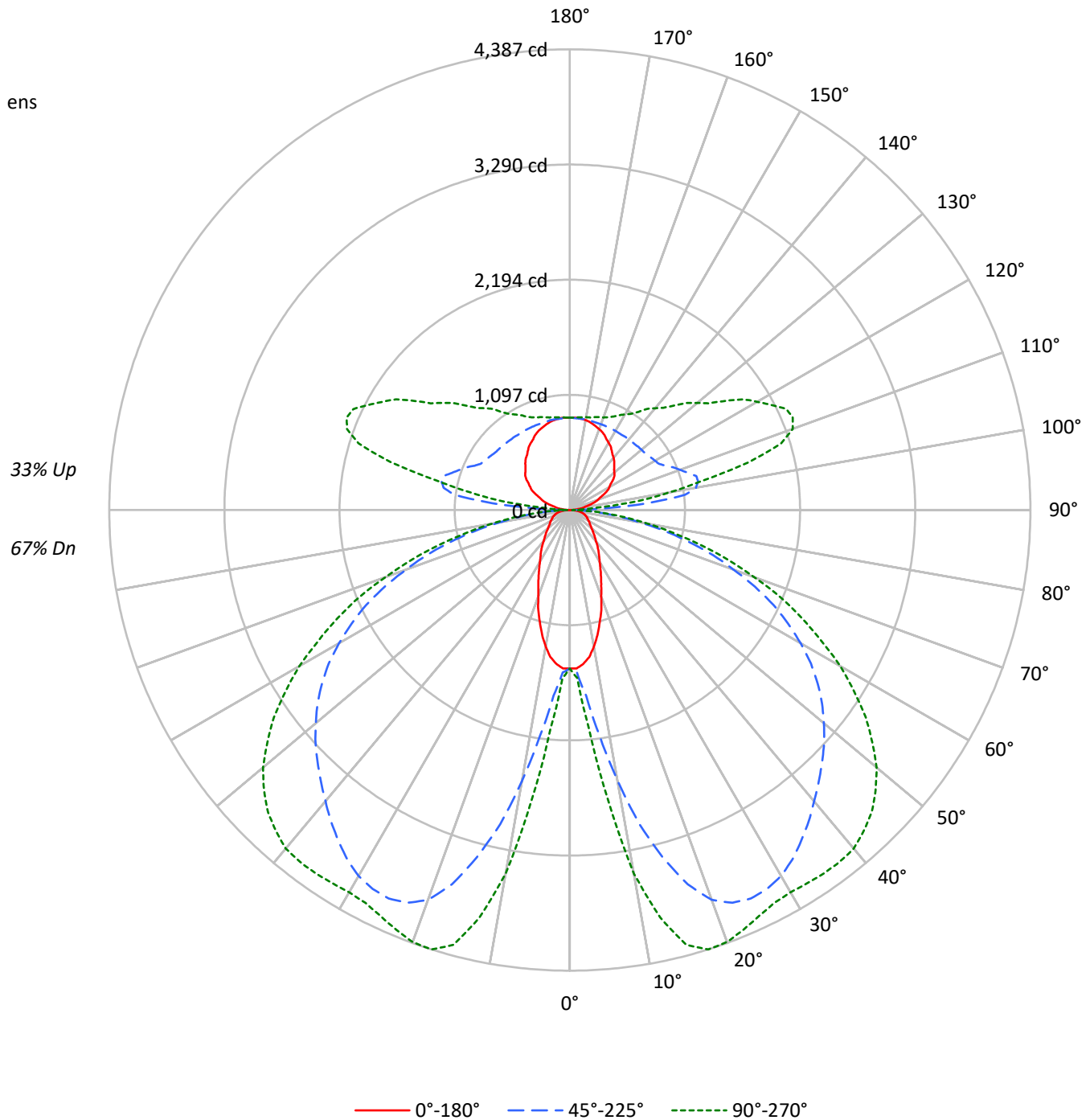
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17389.6 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: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 168
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

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Luminous Intensity Polar Plot





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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°	4562	5397	6275
10°	4140	7869	10404
15°	3520	10284	12562
20°	2867	11920	12803
25°	2392	12477	12543
30°	2019	12559	12519
35°	1785	12354	12843
40°	1557	12086	13177
45°	1410	11891	13229
50°	1295	11717	13010
55°	1242	11459	12433
60°	1273	10961	11523
65°	1326	10201	10271
70°	1415	8902	8677
75°	1574	7265	6772
80°	1733	5045	4563
85°	1575	2681	2335

MAXIMUM LUMINANCE 45°-90°:

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.2	1.1
10°-20°	865.3	5.0
20°-30°	1513.6	8.7
30°-40°	1948.4	11.2
40°-50°	2176.4	12.5
50°-60°	2084.4	12.0
60°-70°	1651.9	9.5
70°-80°	971.4	5.6
80°-90°	273.2	1.6
90°-100°	429.3	2.5
100°-110°	1128.7	6.5
110°-120°	1170.4	6.7
120°-130°	938.8	5.4
130°-140°	736.6	4.2
140°-150°	565.4	3.3
150°-160°	407.2	2.3
160°-170°	249.1	1.4
170°-180°	84.2	0.5
0°-30°	2574.2	14.8
0°-40°	4522.6	26.0
0°-60°	8783.4	50.5
0°-90°	11679.9	67.2
90°-120°	2728.4	15.7
90°-150°	4969.2	28.6
90°-180°	5710.0	32.8
0°-180°	17389.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1470	1577	1776	2009	2082	136
15°	1102	2034	3426	4154	4286	307
25°	704	2305	4082	4261	4266	324
35°	476	2203	3844	4062	4222	297
45°	325	1757	3397	3892	4067	252
55°	233	1116	2883	3349	3441	212
65°	184	592	2140	2407	2441	183
75°	136	364	1174	1291	1296	142
85°	49	112	291	320	325	51
90°	6	16	45	22	22	8
95°	57	222	740	381	260	63
105°	203	308	1248	1894	1768	216
115°	361	439	1000	1994	2276	357
125°	502	563	909	1536	1812	446
135°	599	659	881	1240	1406	463
145°	694	739	870	1058	1141	435
155°	785	807	870	955	982	361
165°	847	858	870	904	915	239
175°	881	881	875	887	887	84
180°	881	881	881	881	881	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4	1509.4
2.5°	1509.4	1509.4	1519.1	1524.0	1533.6	1538.5	1548.2	1557.9	1587.1	1591.9	1601.6
5°	1470.5	1489.9	1553.0	1577.3	1645.3	1737.5	1776.3	1839.4	1970.4	2009.3	2033.5
7.5°	1412.3	1456.0	1611.3	1650.2	1820.0	2062.7	2164.6	2300.5	2509.2	2611.1	2693.6
10°	1320.1	1412.3	1689.0	1781.1	2057.8	2426.6	2615.9	2805.2	3120.7	3261.4	3314.8
12.5°	1218.2	1368.6	1771.5	1897.7	2295.6	2834.3	3062.5	3271.1	3630.3	3819.6	3848.7
15°	1101.7	1305.5	1849.1	2033.5	2548.0	3174.1	3426.4	3683.7	4018.5	4154.5	4188.4
17.5°	999.8	1257.0	1921.9	2116.0	2742.1	3479.8	3737.1	3950.6	4222.4	4314.6	4338.9
20°	873.6	1179.3	1970.4	2222.8	2946.0	3703.1	3950.6	4115.6	4300.1	4358.3	4368.0
22.5°	781.3	1096.8	1999.6	2261.6	3081.9	3839.0	4047.7	4178.7	4304.9	4324.3	4329.2
25°	703.7	1004.7	1994.7	2305.3	3198.3	3921.5	4081.6	4178.7	4251.5	4261.2	4261.2
27.5°	631.0	902.8	1975.3	2315.0	3285.7	3940.9	4067.1	4135.0	4169.0	4188.4	4188.4
30°	567.9	805.6	1926.7	2295.6	3324.5	3921.5	4023.4	4057.4	4091.4	4120.5	4135.0
32.5°	519.3	713.5	1854.0	2256.8	3329.4	3872.9	3945.8	3965.2	4013.7	4081.6	4105.9
35°	475.6	621.2	1771.5	2203.4	3300.3	3795.3	3843.8	3863.3	3960.3	4062.2	4096.2
37.5°	431.9	553.2	1664.7	2111.2	3256.6	3703.1	3737.1	3771.0	3921.5	4042.8	4081.6
40°	388.2	495.0	1538.5	2009.3	3188.6	3591.5	3620.6	3674.0	3872.9	4013.7	4052.5
42.5°	354.3	446.5	1402.6	1902.5	3101.3	3465.3	3509.0	3586.6	3814.7	3965.2	4008.9
45°	325.1	398.0	1257.0	1756.9	2989.6	3334.2	3397.3	3504.1	3746.8	3892.4	3931.2
47.5°	296.1	364.0	1106.6	1606.5	2868.3	3203.2	3285.7	3407.0	3654.6	3795.3	3829.3
50°	271.8	330.0	956.1	1446.3	2737.3	3062.5	3159.5	3285.7	3538.1	3669.1	3712.8
52.5°	252.4	300.9	815.4	1286.1	2586.8	2916.9	3028.5	3159.5	3397.3	3523.5	3552.6
55°	233.0	276.7	694.1	1116.2	2431.5	2761.5	2882.9	3009.1	3242.0	3348.8	3368.2
57.5°	223.2	257.3	592.1	956.1	2266.5	2586.8	2722.7	2839.2	3057.6	3140.1	3159.5
60°	208.7	242.6	514.4	820.2	2086.9	2421.8	2538.3	2654.8	2839.2	2907.1	2921.7
62.5°	194.2	233.0	456.2	689.2	1902.5	2227.7	2344.1	2450.9	2606.2	2654.8	2674.2
65°	184.4	223.2	412.5	592.1	1713.2	2023.9	2140.3	2232.5	2358.7	2407.2	2417.0
67.5°	174.8	213.6	378.6	509.6	1524.0	1820.0	1907.3	1994.7	2091.8	2140.3	2145.2
70°	160.1	203.8	349.4	451.3	1329.8	1587.1	1659.8	1752.1	1829.7	1854.0	1868.5
72.5°	150.5	189.3	330.0	407.6	1130.9	1363.8	1431.7	1485.1	1553.0	1577.3	1577.3
75°	135.8	169.9	310.6	364.0	926.9	1116.2	1174.5	1227.9	1281.2	1291.0	1276.5
77.5°	121.3	150.5	266.9	305.7	723.1	883.3	931.8	961.0	1004.7	1014.3	1019.2
80°	101.9	131.1	208.7	237.9	524.2	650.4	684.3	708.6	747.4	747.4	757.2
82.5°	77.6	101.9	150.5	169.9	354.3	446.5	475.6	490.1	514.4	514.4	514.4
85°	48.6	63.1	97.0	111.7	213.6	271.8	291.2	296.1	315.5	320.4	320.4
87.5°	24.3	33.9	63.1	68.0	111.7	140.7	140.7	150.5	150.5	145.6	140.7
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	40.0	29.9	22.5	22.5
92.5°	23.6	63.8	104.0	114.1	160.3	222.1	253.0	221.7	159.2	112.3	107.8
95°	56.8	130.3	203.9	222.3	394.6	624.6	739.5	659.8	500.7	381.3	367.7
97.5°	98.1	163.0	227.9	244.2	531.6	914.9	1106.6	1056.3	955.6	880.2	854.5
100°	130.0	188.9	247.7	262.4	581.4	1006.8	1219.5	1223.1	1230.5	1236.0	1205.3
102.5°	157.3	212.1	267.0	280.8	604.3	1035.7	1251.4	1315.5	1443.7	1539.8	1513.5
105°	203.3	249.8	296.3	307.9	621.2	1039.0	1247.9	1391.6	1678.9	1894.5	1880.4
107.5°	250.7	294.0	337.4	348.2	624.5	992.8	1176.9	1377.4	1778.4	2079.0	2082.5
110°	282.6	321.7	360.9	370.6	619.7	951.8	1117.9	1341.9	1790.1	2126.2	2141.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.9	351.1	388.4	397.8	619.9	915.9	1064.0	1293.4	1752.1	2096.1	2118.7
115°	361.2	395.6	430.0	438.6	625.6	874.9	999.6	1220.5	1662.4	1993.8	2025.2
117.5°	407.8	439.1	470.4	478.2	637.2	849.2	955.2	1154.7	1553.4	1852.5	1887.2
120°	435.1	464.5	493.9	501.2	646.6	840.6	937.5	1119.8	1484.1	1757.4	1791.2
122.5°	461.7	491.4	521.0	528.5	660.3	836.0	923.9	1087.9	1416.1	1662.2	1695.5
125°	502.5	529.5	556.6	563.4	678.7	832.3	909.2	1048.5	1327.2	1536.3	1567.0
127.5°	535.6	562.9	590.2	597.0	696.9	830.1	896.7	1016.4	1255.7	1435.2	1461.2
130°	553.3	582.8	612.1	619.5	710.3	831.4	892.0	998.5	1211.6	1371.4	1395.3
132.5°	571.6	601.0	630.5	637.8	721.2	832.3	887.8	983.2	1174.0	1317.0	1338.4
135°	598.8	625.6	652.4	659.1	733.0	831.5	880.8	960.7	1120.4	1240.2	1258.7
137.5°	626.6	653.1	679.7	686.3	750.7	836.7	879.6	947.1	1082.2	1183.4	1198.5
140°	649.6	674.1	698.5	704.6	761.5	837.5	875.4	933.7	1050.5	1137.9	1152.1
142.5°	667.4	689.9	712.6	718.2	770.6	840.5	875.4	926.7	1029.1	1106.0	1118.1
145°	694.5	714.2	733.9	738.9	782.5	840.5	869.6	911.5	995.3	1058.1	1067.3
147.5°	721.8	740.9	760.1	764.9	799.8	846.3	869.6	902.6	968.5	1017.9	1025.6
150°	739.5	756.8	774.2	778.5	808.9	849.3	869.6	897.4	953.0	994.8	1001.0
152.5°	757.8	770.9	784.1	787.4	814.8	851.3	869.6	893.4	940.9	976.6	981.2
155°	785.0	794.7	804.5	806.9	827.8	855.6	869.6	888.5	926.3	954.7	957.7
157.5°	805.1	814.6	824.0	826.4	840.8	860.0	869.6	884.3	913.6	935.7	937.9
160°	818.7	826.1	833.4	835.3	846.7	861.9	869.6	882.2	907.3	926.3	927.5
162.5°	832.3	837.8	843.4	844.7	853.0	864.0	869.6	880.2	901.4	917.4	918.5
165°	847.1	852.1	857.1	858.3	862.0	867.1	869.6	877.2	892.4	903.8	905.0
167.5°	860.7	863.0	865.4	865.9	869.1	873.3	875.4	880.4	890.4	897.9	898.4
170°	869.6	871.9	874.3	874.8	875.0	875.3	875.4	880.4	890.4	897.9	897.9
172.5°	874.3	874.7	875.3	875.4	875.4	875.4	875.4	879.3	887.3	893.2	892.7
175°	880.8	880.8	880.8	880.8	878.9	876.6	875.4	877.9	883.0	886.7	886.7
177.5°	880.8	880.8	880.8	880.8	879.4	877.6	876.7	878.7	882.6	885.5	885.0
180°	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1509.4	1509.4
2.5°	1611.3	1601.6
5°	2072.4	2082.1
7.5°	2790.7	2785.8
10°	3470.1	3513.8
12.5°	3965.2	3974.9
15°	4266.1	4285.5
17.5°	4382.6	4387.4
20°	4387.4	4377.7
22.5°	4334.0	4324.3
25°	4270.9	4266.1
27.5°	4212.7	4217.6
30°	4188.4	4203.0
32.5°	4188.4	4212.7
35°	4198.1	4222.4
37.5°	4193.3	4222.4
40°	4173.9	4207.8
42.5°	4120.5	4144.7
45°	4038.0	4067.1
47.5°	3931.2	3950.6
50°	3795.3	3814.7
52.5°	3625.4	3630.3
55°	3421.6	3441.0
57.5°	3203.2	3208.0
60°	2960.5	2975.1
62.5°	2703.3	2703.3
65°	2431.5	2441.2
67.5°	2150.0	2174.3
70°	1863.7	1868.5
72.5°	1582.2	1582.2
75°	1291.0	1295.9
77.5°	1014.3	1014.3
80°	752.3	757.2
82.5°	519.3	529.1
85°	325.1	325.1
87.5°	150.5	135.8
90°	22.5	22.5
92.5°	90.0	72.1
95°	313.6	259.5
97.5°	751.4	648.5
100°	1082.7	960.0
102.5°	1408.5	1303.4
105°	1824.0	1767.5
107.5°	2096.0	2109.7
110°	2199.8	2258.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2209.1	2299.5
115°	2150.5	2275.9
117.5°	2026.2	2165.2
120°	1926.2	2061.2
122.5°	1828.7	1961.9
125°	1689.6	1812.4
127.5°	1564.6	1668.1
130°	1491.0	1586.6
132.5°	1424.1	1509.7
135°	1332.5	1406.3
137.5°	1259.0	1319.4
140°	1208.5	1265.0
142.5°	1166.8	1215.4
145°	1104.1	1140.9
147.5°	1056.0	1086.5
150°	1025.7	1050.5
152.5°	999.9	1018.5
155°	970.1	982.5
157.5°	946.5	955.2
160°	932.6	937.5
162.5°	923.3	928.1
165°	910.1	915.1
167.5°	900.6	902.7
170°	897.9	897.9
172.5°	890.9	889.1
175°	886.7	886.7
177.5°	882.9	880.8
180°	880.8	880.8



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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	8.89	8.58	9.70	10.70	20.98	22.08	21.77	22.89	23.89
	3H	8.51	9.50	9.31	10.33	11.35	22.84	23.83	23.64	24.66	25.69
	4H	8.82	9.76	9.64	10.59	11.63	23.50	24.44	24.32	25.27	26.31
	6H	9.08	9.95	9.91	10.79	11.84	23.95	24.82	24.78	25.66	26.71
	8H	9.16	9.98	10.00	10.84	11.90	24.08	24.91	24.92	25.77	26.82
	12H	9.19	9.97	10.03	10.83	11.91	24.16	24.95	25.00	25.80	26.88
4H	2H	15.04	15.98	15.86	16.81	17.85	21.28	22.22	22.10	23.05	24.09
	3H	16.63	17.42	17.46	18.28	19.34	23.36	24.14	24.19	25.01	26.06
	4H	16.74	17.45	17.58	18.31	19.40	24.14	24.85	24.98	25.72	26.80
	6H	16.76	17.38	17.62	18.27	19.35	24.70	25.32	25.56	26.20	27.29
	8H	16.74	17.32	17.61	18.21	19.31	24.87	25.45	25.73	26.33	27.43
	12H	16.71	17.24	17.60	18.14	19.24	24.97	25.50	25.86	26.40	27.51
8H	4H	18.20	18.79	19.07	19.67	20.77	24.22	24.80	25.08	25.68	26.78
	6H	18.46	18.94	19.35	19.86	20.96	24.86	25.35	25.76	26.27	27.37
	8H	18.48	18.91	19.38	19.82	20.94	25.09	25.52	25.99	26.43	27.55
	12H	18.46	18.84	19.37	19.75	20.91	25.25	25.63	26.16	26.54	27.70
12H	4H	18.36	18.89	19.25	19.79	20.89	24.18	24.71	25.07	25.61	26.71
	6H	18.72	19.15	19.62	20.07	21.18	24.85	25.28	25.75	26.20	27.31
	8H	18.80	19.18	19.71	20.09	21.26	25.09	25.47	26.00	26.38	27.55