

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: P938407

Luminaire Tested: SQ4-FB-150U-075D-B50-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938407  
REPORT IS A COMBINATION OF REPORTS P933638 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-B50-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

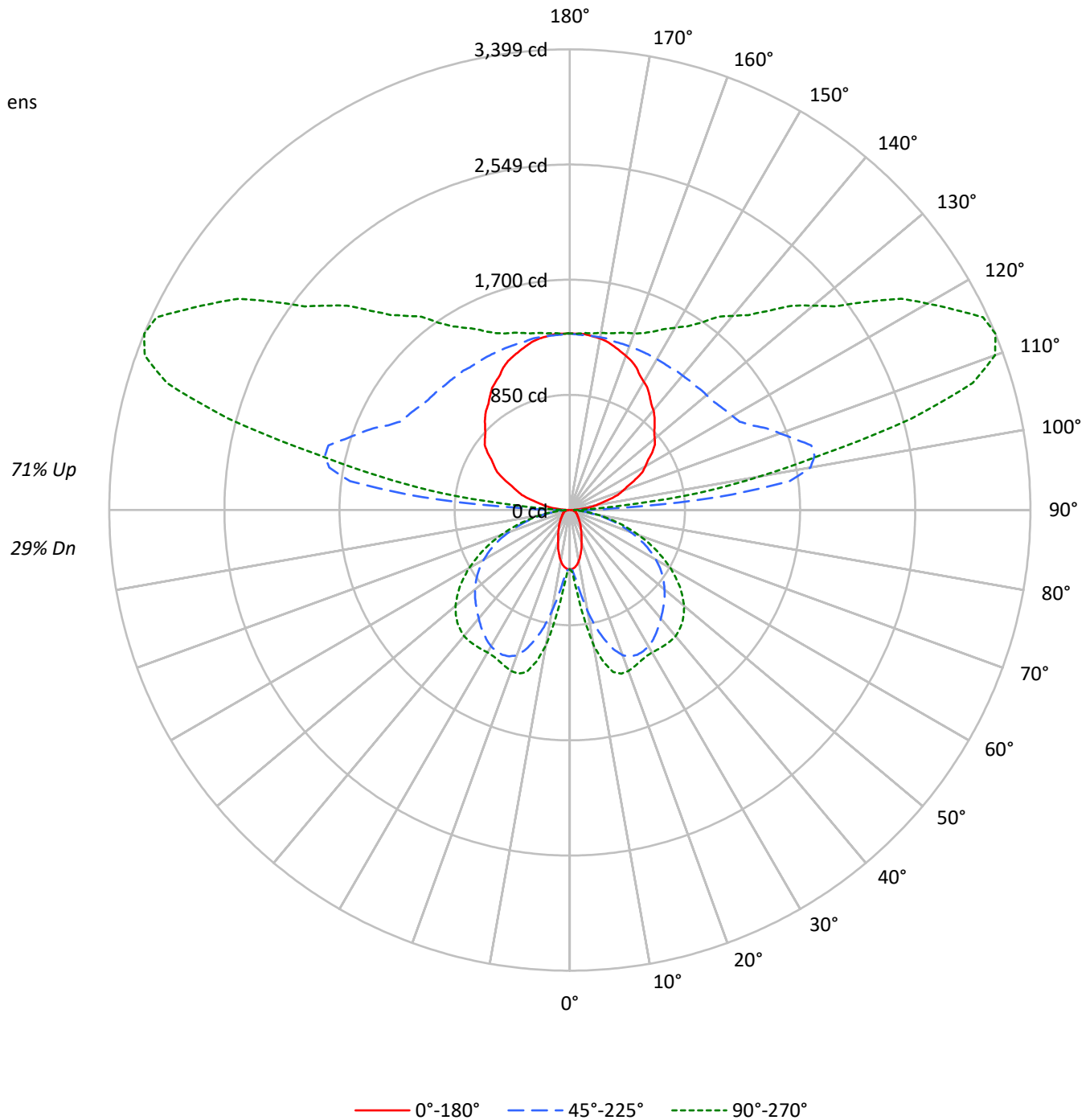
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11816.0 lumens  
Efficiency: N/A  
Efficacy: 123.9 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 95.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29				29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23				23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19				19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16				16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13				13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11				11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10				10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8				8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7				7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6				6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6				6

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2695	2695	2695
5°	2632	3115	3623
10°	2387	4539	6006
15°	2028	5929	7253
20°	1650	6869	7392
25°	1376	7186	7242
30°	1160	7230	7228
35°	1025	7108	7415
40°	893	6949	7609
45°	808	6833	7638
50°	741	6728	7512
55°	708	6575	7178
60°	724	6283	6652
65°	752	5841	5930
70°	799	5090	5010
75°	882	4147	3910
80°	957	2872	2635
85°	835	1522	1349

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7638 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	0.5
10°-20°	249.8	2.1
20°-30°	437.0	3.7
30°-40°	562.5	4.8
40°-50°	628.3	5.3
50°-60°	601.7	5.1
60°-70°	476.9	4.0
70°-80°	280.4	2.4
80°-90°	82.9	0.7
90°-100°	634.7	5.4
100°-110°	1668.5	14.1
110°-120°	1730.1	14.6
120°-130°	1387.7	11.7
130°-140°	1088.9	9.2
140°-150°	835.8	7.1
150°-160°	601.9	5.1
160°-170°	368.3	3.1
170°-180°	124.4	1.1
0°-30°	743.1	6.3
0°-40°	1305.6	11.0
0°-60°	2535.6	21.5
0°-90°	3375.7	28.6
90°-120°	4033.3	34.1
90°-150°	7345.7	62.2
90°-180°	8440.0	71.4
0°-180°	11816.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	436	436	436	436	436	
5°	424	455	513	580	601	39
15°	318	587	989	1199	1237	89
25°	203	666	1178	1230	1232	94
35°	137	636	1110	1173	1219	86
45°	94	507	981	1124	1174	73
55°	67	322	832	967	993	61
65°	53	171	618	695	705	53
75°	39	105	339	373	374	41
85°	14	32	84	92	94	15
90°	9	24	66	33	33	8
95°	84	329	1093	564	384	93
105°	301	455	1845	2801	2613	319
115°	534	648	1478	2947	3364	527
125°	743	833	1344	2271	2679	659
135°	885	974	1302	1833	2079	685
145°	1027	1092	1285	1564	1686	643
155°	1160	1193	1285	1411	1452	533
165°	1252	1269	1285	1336	1353	353
175°	1302	1302	1294	1311	1311	124
180°	1302	1302	1302	1302	1302	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7
2.5°	435.7	435.7	438.5	439.9	442.7	444.1	446.9	449.7	458.1	459.5	462.3
5°	424.5	430.1	448.3	455.3	474.9	501.6	512.8	531.0	568.8	580.0	587.0
7.5°	407.7	420.3	465.1	476.3	525.4	595.4	624.8	664.1	724.3	753.7	777.6
10°	381.1	407.7	487.5	514.2	594.0	700.5	755.1	809.8	900.8	941.5	956.9
12.5°	351.7	395.1	511.4	547.8	662.7	818.2	884.0	944.3	1047.9	1102.7	1111.1
15°	318.0	376.9	533.8	587.0	735.5	916.3	989.1	1063.5	1160.1	1199.3	1209.2
17.5°	288.6	362.9	554.8	610.8	791.6	1004.5	1078.9	1140.5	1219.0	1245.6	1252.6
20°	252.2	340.4	568.8	641.7	850.4	1069.1	1140.5	1188.1	1241.4	1258.2	1261.0
22.5°	225.6	316.6	577.2	652.9	889.6	1108.3	1168.5	1206.4	1242.8	1248.4	1249.8
25°	203.1	290.0	575.8	665.5	923.3	1132.1	1178.3	1206.4	1227.4	1230.2	1230.2
27.5°	182.1	260.6	570.2	668.3	948.5	1137.7	1174.1	1193.7	1203.6	1209.2	1209.2
30°	163.9	232.6	556.2	662.7	959.7	1132.1	1161.5	1171.3	1181.1	1189.5	1193.7
32.5°	149.9	205.9	535.2	651.5	961.1	1118.1	1139.1	1144.7	1158.7	1178.3	1185.3
35°	137.3	179.3	511.4	636.1	952.7	1095.7	1109.7	1115.3	1143.3	1172.7	1182.5
37.5°	124.7	159.7	480.5	609.4	940.1	1069.1	1078.9	1088.7	1132.1	1167.1	1178.3
40°	112.1	142.9	444.1	580.0	920.5	1036.7	1045.1	1060.6	1118.1	1158.7	1169.9
42.5°	102.3	128.9	404.9	549.2	895.2	1000.3	1012.9	1035.3	1101.3	1144.7	1157.3
45°	93.9	114.9	362.9	507.2	863.0	962.5	980.7	1011.5	1081.7	1123.7	1134.9
47.5°	85.5	105.1	319.4	463.7	828.0	924.7	948.5	983.5	1055.0	1095.7	1105.5
50°	78.5	95.3	276.0	417.5	790.2	884.0	912.1	948.5	1021.3	1059.2	1071.9
52.5°	72.9	86.9	235.4	371.3	746.7	842.0	874.2	912.1	980.7	1017.1	1025.5
55°	67.2	79.9	200.3	322.2	701.9	797.2	832.2	868.6	935.9	966.7	972.3
57.5°	64.4	74.3	170.9	276.0	654.3	746.7	786.0	819.6	882.6	906.4	912.1
60°	60.2	70.0	148.5	236.8	602.4	699.1	732.7	766.3	819.6	839.2	843.4
62.5°	56.0	67.2	131.7	198.9	549.2	643.1	676.7	707.5	752.3	766.3	772.0
65°	53.2	64.4	119.1	170.9	494.6	584.2	617.8	644.5	680.9	694.9	697.7
67.5°	50.4	61.6	109.3	147.1	439.9	525.4	550.6	575.8	603.8	617.8	619.2
70°	46.2	58.8	100.9	130.3	383.9	458.1	479.1	505.8	528.2	535.2	539.4
72.5°	43.4	54.6	95.3	117.7	326.4	393.7	413.3	428.7	448.3	455.3	455.3
75°	39.2	49.0	89.7	105.1	267.6	322.2	339.0	354.5	369.9	372.7	368.5
77.5°	35.0	43.4	77.1	88.3	208.7	255.0	269.0	277.4	290.0	292.8	294.2
80°	29.4	37.8	60.2	68.6	151.3	187.7	197.5	204.5	215.8	215.8	218.6
82.5°	22.4	29.4	43.4	49.0	102.3	128.9	137.3	141.5	148.5	148.5	148.5
85°	14.0	18.2	28.0	32.2	61.6	78.5	84.1	85.5	91.1	92.5	92.5
87.5°	7.0	9.8	18.2	19.6	32.2	40.6	40.6	43.4	43.4	42.0	40.6
90°	8.8	15.8	22.7	24.5	38.5	57.1	66.4	59.0	44.3	33.3	33.3
92.5°	34.9	94.3	153.8	168.7	237.1	328.4	374.0	327.7	235.4	166.1	159.4
95°	83.9	192.6	301.4	328.6	583.5	923.3	1093.2	975.5	740.1	563.6	543.6
97.5°	145.1	241.0	336.9	360.9	785.9	1352.5	1635.8	1561.5	1412.7	1301.2	1263.0
100°	192.2	279.3	366.2	388.0	859.6	1488.3	1802.7	1808.1	1819.1	1827.2	1781.9
102.5°	232.5	313.6	394.8	415.1	893.4	1531.0	1849.9	1944.6	2134.1	2276.3	2237.4
105°	300.6	369.3	438.0	455.2	918.4	1535.9	1844.6	2057.0	2481.9	2800.6	2779.7
107.5°	370.5	434.6	498.7	514.6	923.0	1467.5	1739.8	2036.1	2628.7	3073.2	3078.3
110°	417.7	475.6	533.4	547.9	916.1	1406.9	1652.3	1983.6	2646.2	3143.1	3164.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	464.0	519.1	574.2	588.0	916.3	1354.0	1572.9	1911.9	2590.0	3098.5	3132.0
115°	533.9	584.8	635.7	648.4	924.8	1293.3	1477.6	1804.2	2457.4	2947.3	2993.7
117.5°	602.9	649.1	695.4	706.9	942.0	1255.4	1412.1	1706.9	2296.3	2738.5	2789.9
120°	643.2	686.7	730.2	741.0	955.9	1242.6	1385.9	1655.2	2193.9	2597.8	2647.7
122.5°	682.5	726.4	770.3	781.2	976.0	1235.9	1365.8	1608.3	2093.4	2457.2	2506.4
125°	742.7	782.7	822.8	832.8	1003.1	1230.4	1343.9	1550.0	1962.0	2271.0	2316.3
127.5°	791.7	832.0	872.4	882.5	1030.2	1227.1	1325.5	1502.4	1856.2	2121.6	2159.9
130°	817.9	861.4	905.0	915.8	1050.1	1229.1	1318.6	1476.1	1791.0	2027.2	2062.6
132.5°	845.0	888.5	932.0	942.9	1066.1	1230.4	1312.5	1453.4	1735.4	1946.8	1978.5
135°	885.2	924.8	964.4	974.3	1083.5	1229.1	1302.0	1420.1	1656.2	1833.3	1860.5
137.5°	926.2	965.5	1004.7	1014.5	1109.8	1236.7	1300.2	1400.1	1599.7	1749.4	1771.7
140°	960.3	996.5	1032.5	1041.6	1125.8	1238.0	1294.2	1380.4	1552.8	1682.1	1703.0
142.5°	986.5	1019.9	1053.4	1061.7	1139.2	1242.5	1294.2	1369.9	1521.3	1634.9	1652.8
145°	1026.7	1055.9	1085.0	1092.3	1156.7	1242.5	1285.4	1347.3	1471.2	1564.2	1577.7
147.5°	1066.9	1095.3	1123.6	1130.7	1182.3	1251.0	1285.4	1334.1	1431.5	1504.7	1516.0
150°	1093.2	1118.7	1144.3	1150.8	1195.6	1255.5	1285.4	1326.6	1408.8	1470.6	1479.7
152.5°	1120.2	1139.7	1159.1	1164.0	1204.4	1258.4	1285.4	1320.5	1390.8	1443.5	1450.4
155°	1160.4	1174.8	1189.2	1192.7	1223.6	1264.8	1285.4	1313.3	1369.2	1411.2	1415.8
157.5°	1190.1	1204.1	1218.1	1221.6	1242.9	1271.2	1285.4	1307.1	1350.7	1383.3	1386.4
160°	1210.3	1221.1	1231.9	1234.7	1251.6	1274.1	1285.4	1304.1	1341.3	1369.2	1371.1
162.5°	1230.4	1238.5	1246.6	1248.7	1260.9	1277.2	1285.4	1301.1	1332.5	1356.2	1357.9
165°	1252.2	1259.6	1266.9	1268.7	1274.3	1281.6	1285.4	1296.7	1319.2	1336.1	1338.0
167.5°	1272.3	1275.8	1279.3	1280.1	1284.8	1291.1	1294.2	1301.5	1316.3	1327.3	1328.1
170°	1285.4	1288.8	1292.4	1293.2	1293.5	1294.0	1294.2	1301.5	1316.3	1327.3	1327.3
172.5°	1292.4	1293.1	1294.0	1294.2	1294.2	1294.2	1294.2	1299.9	1311.6	1320.3	1319.6
175°	1302.0	1302.0	1302.0	1302.0	1299.4	1295.9	1294.2	1297.8	1305.2	1310.7	1310.7
177.5°	1302.0	1302.0	1302.0	1302.0	1299.9	1297.2	1295.8	1298.7	1304.6	1309.0	1308.3
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	435.7	435.7
2.5°	465.1	462.3
5°	598.2	601.0
7.5°	805.6	804.2
10°	1001.7	1014.3
12.5°	1144.7	1147.5
15°	1231.6	1237.2
17.5°	1265.2	1266.6
20°	1266.6	1263.8
22.5°	1251.2	1248.4
25°	1233.0	1231.6
27.5°	1216.2	1217.6
30°	1209.2	1213.4
32.5°	1209.2	1216.2
35°	1212.0	1219.0
37.5°	1210.6	1219.0
40°	1205.0	1214.8
42.5°	1189.5	1196.5
45°	1165.7	1174.1
47.5°	1134.9	1140.5
50°	1095.7	1101.3
52.5°	1046.5	1047.9
55°	987.7	993.3
57.5°	924.7	926.1
60°	854.6	858.8
62.5°	780.4	780.4
65°	701.9	704.7
67.5°	620.6	627.6
70°	538.0	539.4
72.5°	456.7	456.7
75°	372.7	374.1
77.5°	292.8	292.8
80°	217.2	218.6
82.5°	149.9	152.7
85°	93.9	93.9
87.5°	43.4	39.2
90°	33.3	33.3
92.5°	133.0	106.6
95°	463.5	383.6
97.5°	1110.8	958.6
100°	1600.5	1419.1
102.5°	2082.1	1926.7
105°	2696.2	2612.7
107.5°	3098.5	3118.6
110°	3251.8	3338.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3265.5	3399.1
115°	3178.9	3364.2
117.5°	2995.3	3200.8
120°	2847.4	3047.0
122.5°	2703.3	2900.2
125°	2497.7	2679.1
127.5°	2312.9	2465.9
130°	2204.0	2345.3
132.5°	2105.0	2231.7
135°	1969.7	2078.8
137.5°	1861.1	1950.4
140°	1786.5	1870.0
142.5°	1724.7	1796.5
145°	1632.1	1686.4
147.5°	1561.0	1606.1
150°	1516.3	1552.8
152.5°	1478.0	1505.6
155°	1434.0	1452.3
157.5°	1399.3	1412.1
160°	1378.5	1385.9
162.5°	1364.9	1371.9
165°	1345.2	1352.6
167.5°	1331.2	1334.3
170°	1327.3	1327.3
172.5°	1316.9	1314.2
175°	1310.7	1310.7
177.5°	1305.1	1302.0
180°	1302.0	1302.0



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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	2.06	2.77	3.17	3.89	5.43	15.22	15.94	16.34	17.05	18.60
	3H	2.75	3.39	3.87	4.51	6.08	17.04	17.69	18.17	18.81	20.37
	4H	3.04	3.65	4.17	4.77	6.34	17.68	18.29	18.81	19.41	20.98
	6H	3.28	3.84	4.43	4.97	6.55	18.10	18.66	19.24	19.79	21.36
	8H	3.35	3.88	4.49	5.02	6.59	18.21	18.75	19.36	19.89	21.46
	12H	3.36	3.87	4.51	5.00	6.60	18.27	18.78	19.42	19.92	21.51
4H	2H	9.24	9.86	10.39	10.98	12.54	15.48	16.09	16.62	17.21	18.78
	3H	10.80	11.31	11.95	12.46	14.04	17.50	18.02	18.65	19.16	20.74
	4H	10.89	11.36	12.04	12.50	14.09	18.26	18.73	19.41	19.87	21.47
	6H	10.89	11.29	12.05	12.45	14.04	18.79	19.19	19.94	20.35	21.94
	8H	10.86	11.24	12.02	12.39	14.00	18.94	19.32	20.10	20.47	22.08
	12H	10.81	11.15	11.98	12.32	13.93	19.03	19.37	20.20	20.53	22.14
8H	4H	12.32	12.69	13.47	13.84	15.45	18.31	18.69	19.47	19.84	21.44
	6H	12.55	12.86	13.73	14.06	15.66	18.93	19.24	20.10	20.43	22.04
	8H	12.57	12.84	13.75	14.01	15.63	19.14	19.41	20.33	20.59	22.21
	12H	12.53	12.77	13.72	13.94	15.59	19.28	19.52	20.46	20.69	22.34
12H	4H	12.45	12.79	13.62	13.96	15.57	18.25	18.60	19.43	19.76	21.37
	6H	12.81	13.08	13.99	14.25	15.87	18.91	19.18	20.09	20.35	21.98
	8H	12.87	13.11	14.06	14.28	15.93	19.13	19.37	20.32	20.54	22.19