

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: P937667

Luminaire Tested: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937667
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

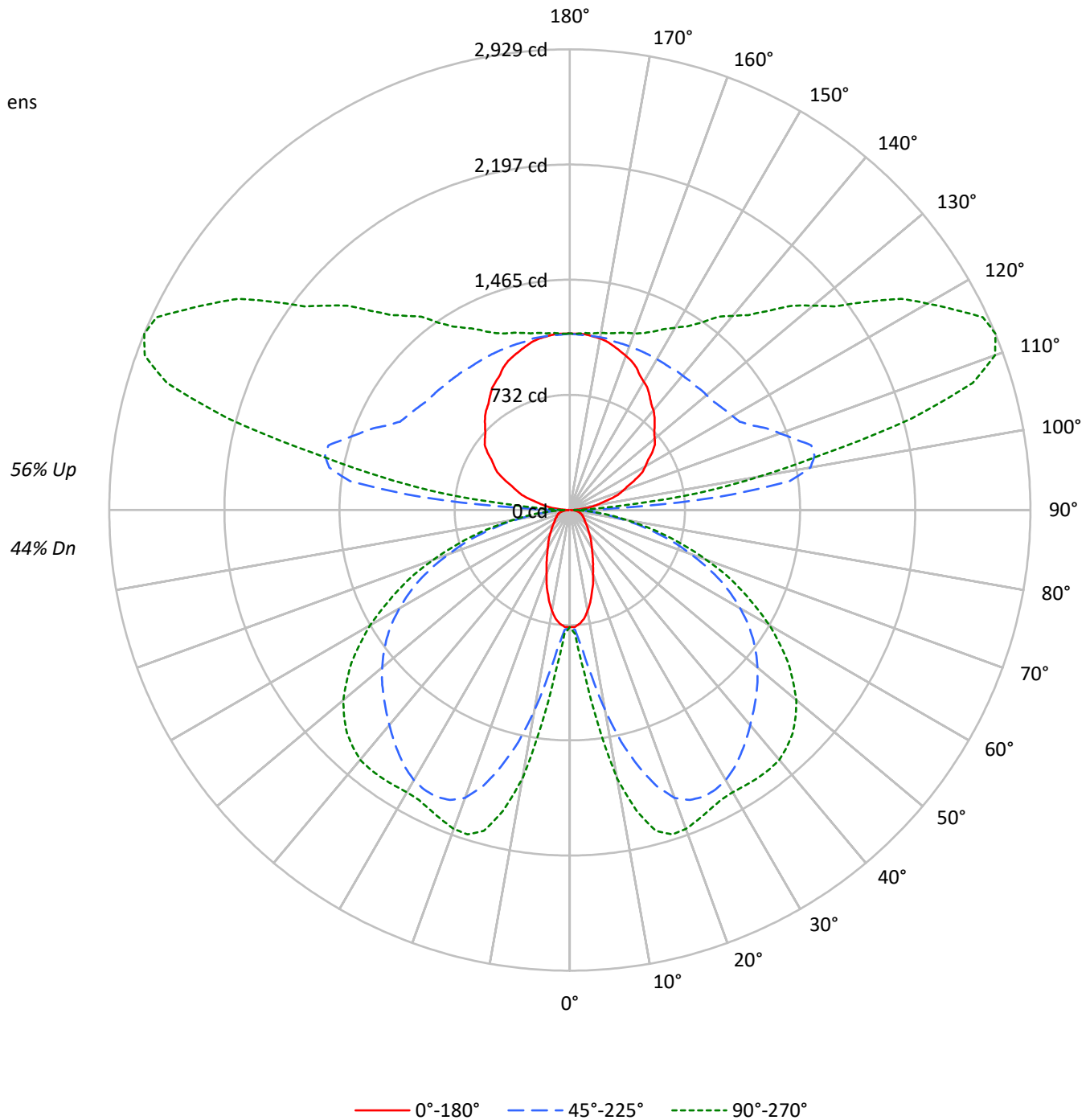
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13032.5 lumens
Efficiency: N/A
Efficacy: 112.3 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: General Diffuse

Input Watts (W): 116
Input Voltage (V): NR
Input Current (Ain): 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	
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3452	3452	3452
5°	3372	3989	4639
10°	3058	5815	7691
15°	2599	7597	9287
20°	2116	8804	9465
25°	1766	9213	9273
30°	1489	9271	9256
35°	1316	9117	9495
40°	1147	8917	9742
45°	1039	8771	9780
50°	953	8639	9618
55°	912	8445	9192
60°	934	8075	8519
65°	972	7511	7594
70°	1035	6550	6415
75°	1148	5341	5006
80°	1252	3704	3374
85°	1113	1966	1727

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9780 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.2	0.7
10°-20°	426.5	3.3
20°-30°	746.0	5.7
30°-40°	960.3	7.4
40°-50°	1072.7	8.2
50°-60°	1027.4	7.9
60°-70°	814.2	6.2
70°-80°	478.8	3.7
80°-90°	137.3	1.1
90°-100°	546.9	4.2
100°-110°	1437.8	11.0
110°-120°	1490.9	11.4
120°-130°	1195.9	9.2
130°-140°	938.3	7.2
140°-150°	720.2	5.5
150°-160°	518.7	4.0
160°-170°	317.4	2.4
170°-180°	107.2	0.8
0°-30°	1268.7	9.7
0°-40°	2229.1	17.1
0°-60°	4329.1	33.2
0°-90°	5759.3	44.2
90°-120°	3475.6	26.7
90°-150°	6330.0	48.6
90°-180°	7273.0	55.8
0°-180°	13032.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	725	777	876	990	1026	67
15°	543	1002	1689	2048	2112	151
25°	347	1136	2012	2100	2103	160
35°	234	1086	1894	2002	2081	146
45°	160	866	1674	1918	2005	124
55°	115	550	1421	1650	1696	105
65°	91	292	1055	1186	1203	90
75°	67	179	579	636	639	70
85°	24	55	144	158	160	25
90°	8	21	57	29	29	8
95°	72	283	942	486	331	80
105°	259	392	1590	2413	2251	275
115°	460	559	1273	2540	2899	454
125°	640	718	1158	1957	2309	568
135°	763	840	1122	1580	1791	590
145°	885	941	1108	1348	1453	554
155°	1000	1028	1108	1216	1252	459
165°	1079	1093	1108	1151	1166	305
175°	1122	1122	1115	1130	1130	107
180°	1122	1122	1122	1122	1122	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
2.5°	744.0	744.0	748.7	751.1	755.9	758.3	763.1	767.8	782.2	784.6	789.4
5°	724.8	734.4	765.5	777.4	810.9	856.4	875.5	906.6	971.1	990.3	1002.3
7.5°	696.1	717.6	794.2	813.3	897.0	1016.6	1066.8	1133.8	1236.7	1287.0	1327.6
10°	650.6	696.1	832.5	877.9	1014.2	1196.0	1289.3	1382.6	1538.0	1607.5	1633.7
12.5°	600.4	674.5	873.1	935.3	1131.5	1396.9	1509.4	1612.3	1789.2	1882.6	1896.9
15°	543.0	643.5	911.4	1002.3	1255.8	1564.4	1688.8	1815.6	1980.6	2047.6	2064.3
17.5°	492.8	619.6	947.3	1042.9	1351.5	1715.1	1841.9	1947.1	2081.1	2126.5	2138.5
20°	430.6	581.3	971.1	1095.5	1452.0	1825.2	1947.1	2028.5	2119.3	2148.0	2152.8
22.5°	385.1	540.6	985.5	1114.7	1519.0	1892.1	1995.0	2059.5	2121.8	2131.3	2133.7
25°	346.9	495.1	983.1	1136.2	1576.3	1932.8	2011.7	2059.5	2095.4	2100.2	2100.2
27.5°	310.9	444.9	973.6	1141.0	1619.4	1942.4	2004.6	2038.1	2054.8	2064.3	2064.3
30°	279.9	397.1	949.6	1131.5	1638.5	1932.8	1983.0	1999.8	2016.5	2030.8	2038.1
32.5°	256.0	351.7	913.8	1112.3	1641.0	1908.9	1944.7	1954.3	1978.2	2011.7	2023.7
35°	234.4	306.2	873.1	1086.0	1626.6	1870.6	1894.5	1904.1	1951.9	2002.1	2018.9
37.5°	212.9	272.7	820.4	1040.6	1605.0	1825.2	1841.9	1858.7	1932.8	1992.5	2011.7
40°	191.4	244.0	758.3	990.3	1571.5	1770.1	1784.4	1810.8	1908.9	1978.2	1997.3
42.5°	174.6	220.0	691.3	937.7	1528.5	1707.9	1729.5	1767.7	1880.1	1954.3	1975.9
45°	160.3	196.1	619.6	865.9	1473.5	1643.3	1674.5	1727.0	1846.6	1918.4	1937.6
47.5°	145.9	179.4	545.4	791.7	1413.7	1578.8	1619.4	1679.3	1801.2	1870.6	1887.4
50°	134.0	162.7	471.2	712.8	1349.1	1509.4	1557.2	1619.4	1743.8	1808.4	1829.9
52.5°	124.4	148.3	401.9	633.9	1274.9	1437.6	1492.6	1557.2	1674.5	1736.6	1750.9
55°	114.8	136.3	342.1	550.2	1198.4	1361.1	1420.8	1483.1	1597.9	1650.5	1660.1
57.5°	110.1	126.8	291.8	471.2	1117.1	1274.9	1341.9	1399.4	1507.0	1547.6	1557.2
60°	102.8	119.6	253.5	404.2	1028.6	1193.6	1251.0	1308.4	1399.4	1432.9	1440.0
62.5°	95.7	114.8	224.8	339.7	937.7	1098.0	1155.3	1208.0	1284.5	1308.4	1318.0
65°	90.9	110.1	203.3	291.8	844.4	997.5	1054.9	1100.3	1162.5	1186.5	1191.3
67.5°	86.1	105.3	186.6	251.2	751.1	897.0	940.1	983.1	1031.0	1054.9	1057.3
70°	78.9	100.5	172.3	222.5	655.4	782.2	818.1	863.5	901.8	913.8	920.9
72.5°	74.1	93.3	162.7	200.9	557.3	672.2	705.7	732.0	765.5	777.4	777.4
75°	67.0	83.7	153.1	179.4	456.9	550.2	578.9	605.2	631.5	636.3	629.1
77.5°	59.8	74.1	131.5	150.7	356.5	435.4	459.3	473.6	495.1	499.9	502.4
80°	50.2	64.6	102.8	117.2	258.3	320.5	337.3	349.2	368.4	368.4	373.2
82.5°	38.3	50.2	74.1	83.7	174.6	220.0	234.4	241.6	253.5	253.5	253.5
85°	23.9	31.1	47.9	55.0	105.3	134.0	143.6	145.9	155.5	157.9	157.9
87.5°	11.9	16.7	31.1	33.5	55.0	69.3	69.3	74.1	74.1	71.8	69.3
90°	7.5	13.6	19.6	21.1	33.1	49.2	57.2	50.9	38.1	28.6	28.6
92.5°	30.1	81.4	132.6	145.4	204.3	283.0	322.2	282.4	202.8	143.1	137.4
95°	72.3	166.0	259.7	283.1	502.7	795.5	942.0	840.6	637.8	485.7	468.5
97.5°	125.0	207.6	290.4	311.0	677.2	1165.5	1409.6	1345.5	1217.4	1121.2	1088.5
100°	165.6	240.6	315.6	334.4	740.7	1282.5	1553.4	1558.1	1567.5	1574.5	1535.4
102.5°	200.3	270.2	340.2	357.6	769.7	1319.3	1594.1	1675.7	1839.1	1961.6	1928.1
105°	259.1	318.3	377.5	392.3	791.4	1323.5	1589.6	1772.6	2138.7	2413.3	2395.3
107.5°	319.3	374.5	429.7	443.5	795.5	1264.6	1499.2	1754.6	2265.3	2648.2	2652.6
110°	359.9	409.8	459.6	472.1	789.4	1212.4	1423.9	1709.4	2280.3	2708.5	2727.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	399.8	447.3	494.9	506.8	789.7	1166.8	1355.4	1647.6	2231.9	2670.1	2698.9
115°	460.1	503.9	547.8	558.8	796.9	1114.5	1273.3	1554.8	2117.7	2539.9	2579.8
117.5°	519.6	559.4	599.2	609.2	811.7	1081.8	1216.8	1470.8	1978.9	2359.8	2404.1
120°	554.2	591.7	629.2	638.5	823.8	1070.8	1194.3	1426.4	1890.5	2238.6	2281.6
122.5°	588.1	625.9	663.8	673.2	841.1	1064.9	1176.9	1385.9	1803.9	2117.4	2159.9
125°	640.0	674.5	709.0	717.6	864.4	1060.2	1158.1	1335.7	1690.8	1957.0	1996.2
127.5°	682.2	717.0	751.8	760.5	887.8	1057.5	1142.3	1294.7	1599.6	1828.2	1861.2
130°	704.8	742.2	779.7	789.1	904.8	1059.1	1136.2	1271.9	1543.4	1747.0	1777.4
132.5°	728.1	765.6	803.1	812.5	918.6	1060.2	1131.0	1252.5	1495.4	1677.6	1704.9
135°	762.8	796.9	831.1	839.6	933.8	1059.2	1121.9	1223.7	1427.2	1579.8	1603.3
137.5°	798.2	831.9	865.8	874.2	956.3	1065.7	1120.4	1206.4	1378.5	1507.5	1526.7
140°	827.5	858.6	889.8	897.6	970.1	1066.8	1115.2	1189.5	1338.1	1449.5	1467.5
142.5°	850.1	878.9	907.7	914.8	981.6	1070.6	1115.2	1180.4	1310.9	1408.9	1424.4
145°	884.8	909.9	935.0	941.3	996.8	1070.7	1107.6	1161.1	1267.8	1347.9	1359.6
147.5°	919.4	943.8	968.3	974.4	1018.8	1078.0	1107.6	1149.6	1233.6	1296.6	1306.3
150°	942.0	964.1	986.2	991.7	1030.3	1081.8	1107.6	1143.1	1214.1	1267.3	1275.2
152.5°	965.4	982.1	998.8	1003.0	1037.9	1084.4	1107.6	1138.0	1198.5	1244.0	1249.9
155°	999.9	1012.3	1024.7	1027.8	1054.4	1089.9	1107.6	1131.7	1180.0	1216.1	1220.0
157.5°	1025.5	1037.6	1049.7	1052.7	1071.0	1095.4	1107.6	1126.4	1163.9	1192.0	1194.7
160°	1042.9	1052.3	1061.7	1064.0	1078.6	1098.0	1107.6	1123.8	1155.9	1180.0	1181.6
162.5°	1060.2	1067.3	1074.3	1076.1	1086.6	1100.6	1107.6	1121.2	1148.3	1168.7	1170.2
165°	1079.0	1085.4	1091.7	1093.3	1098.1	1104.5	1107.6	1117.3	1136.8	1151.4	1153.0
167.5°	1096.3	1099.3	1102.4	1103.1	1107.1	1112.4	1115.2	1121.5	1134.3	1143.8	1144.4
170°	1107.6	1110.6	1113.7	1114.4	1114.7	1115.0	1115.2	1121.5	1134.3	1143.8	1143.8
172.5°	1113.7	1114.3	1115.0	1115.2	1115.2	1115.2	1115.2	1120.2	1130.3	1137.8	1137.2
175°	1121.9	1121.9	1121.9	1121.9	1119.7	1116.7	1115.2	1118.3	1124.7	1129.5	1129.5
177.5°	1121.9	1121.9	1121.9	1121.9	1120.2	1117.9	1116.7	1119.2	1124.2	1128.0	1127.4
180°	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	744.0	744.0
2.5°	794.2	789.4
5°	1021.4	1026.2
7.5°	1375.4	1373.0
10°	1710.3	1731.8
12.5°	1954.3	1959.1
15°	2102.6	2112.2
17.5°	2160.0	2162.4
20°	2162.4	2157.6
22.5°	2136.1	2131.3
25°	2105.0	2102.6
27.5°	2076.3	2078.7
30°	2064.3	2071.6
32.5°	2064.3	2076.3
35°	2069.1	2081.1
37.5°	2066.8	2081.1
40°	2057.2	2073.9
42.5°	2030.8	2042.8
45°	1990.2	2004.6
47.5°	1937.6	1947.1
50°	1870.6	1880.1
52.5°	1786.9	1789.2
55°	1686.4	1696.0
57.5°	1578.8	1581.1
60°	1459.1	1466.4
62.5°	1332.4	1332.4
65°	1198.4	1203.2
67.5°	1059.7	1071.6
70°	918.6	920.9
72.5°	779.8	779.8
75°	636.3	638.7
77.5°	499.9	499.9
80°	370.8	373.2
82.5°	256.0	260.8
85°	160.3	160.3
87.5°	74.1	67.0
90°	28.6	28.6
92.5°	114.7	91.9
95°	399.5	330.6
97.5°	957.2	826.0
100°	1379.2	1222.9
102.5°	1794.2	1660.3
105°	2323.4	2251.4
107.5°	2670.0	2687.4
110°	2802.2	2877.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2814.0	2929.1
115°	2739.4	2899.0
117.5°	2581.2	2758.2
120°	2453.7	2625.7
122.5°	2329.5	2499.1
125°	2152.4	2308.7
127.5°	1993.1	2125.0
130°	1899.2	2021.0
132.5°	1814.0	1923.1
135°	1697.4	1791.4
137.5°	1603.7	1680.7
140°	1539.4	1611.4
142.5°	1486.3	1548.2
145°	1406.4	1453.2
147.5°	1345.2	1384.0
150°	1306.6	1338.1
152.5°	1273.7	1297.4
155°	1235.7	1251.5
157.5°	1205.8	1216.8
160°	1187.9	1194.3
162.5°	1176.2	1182.2
165°	1159.3	1165.7
167.5°	1147.1	1149.8
170°	1143.8	1143.8
172.5°	1134.9	1132.5
175°	1129.5	1129.5
177.5°	1124.7	1121.9
180°	1121.9	1121.9



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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	4.75	5.60	5.75	6.61	7.96	17.93	18.78	18.93	19.79	21.14
	3H	5.46	6.22	6.47	7.24	8.61	19.77	20.53	20.78	21.55	22.92
	4H	5.76	6.48	6.78	7.50	8.88	20.42	21.14	21.44	22.16	23.54
	6H	6.01	6.67	7.04	7.70	9.09	20.85	21.51	21.88	22.54	23.93
	8H	6.07	6.71	7.11	7.75	9.14	20.97	21.60	22.00	22.65	24.03
	12H	6.09	6.69	7.13	7.73	9.14	21.03	21.63	22.08	22.68	24.09
4H	2H	11.97	12.69	13.00	13.71	15.09	18.21	18.92	19.23	19.95	21.33
	3H	13.53	14.14	14.57	15.19	16.58	20.25	20.85	21.29	21.91	23.30
	4H	13.63	14.18	14.67	15.23	16.64	21.02	21.57	22.06	22.61	24.03
	6H	13.64	14.11	14.69	15.18	16.59	21.55	22.03	22.61	23.10	24.51
	8H	13.61	14.06	14.67	15.12	16.54	21.72	22.16	22.77	23.22	24.65
	12H	13.57	13.97	14.64	15.05	16.48	21.81	22.21	22.88	23.29	24.72
8H	4H	15.07	15.52	16.13	16.58	18.00	21.07	21.52	22.13	22.58	24.00
	6H	15.31	15.68	16.39	16.78	18.21	21.70	22.07	22.78	23.17	24.60
	8H	15.33	15.65	16.42	16.74	18.18	21.92	22.25	23.01	23.33	24.77
	12H	15.30	15.58	16.39	16.67	18.15	22.07	22.35	23.16	23.43	24.91
12H	4H	15.21	15.62	16.29	16.69	18.12	21.03	21.43	22.10	22.50	23.93
	6H	15.57	15.90	16.66	16.98	18.42	21.69	22.01	22.77	23.10	24.54
	8H	15.64	15.92	16.73	17.01	18.49	21.92	22.20	23.01	23.28	24.76