

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: P937546

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937546
REPORT IS A COMBINATION OF REPORTS P933582 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

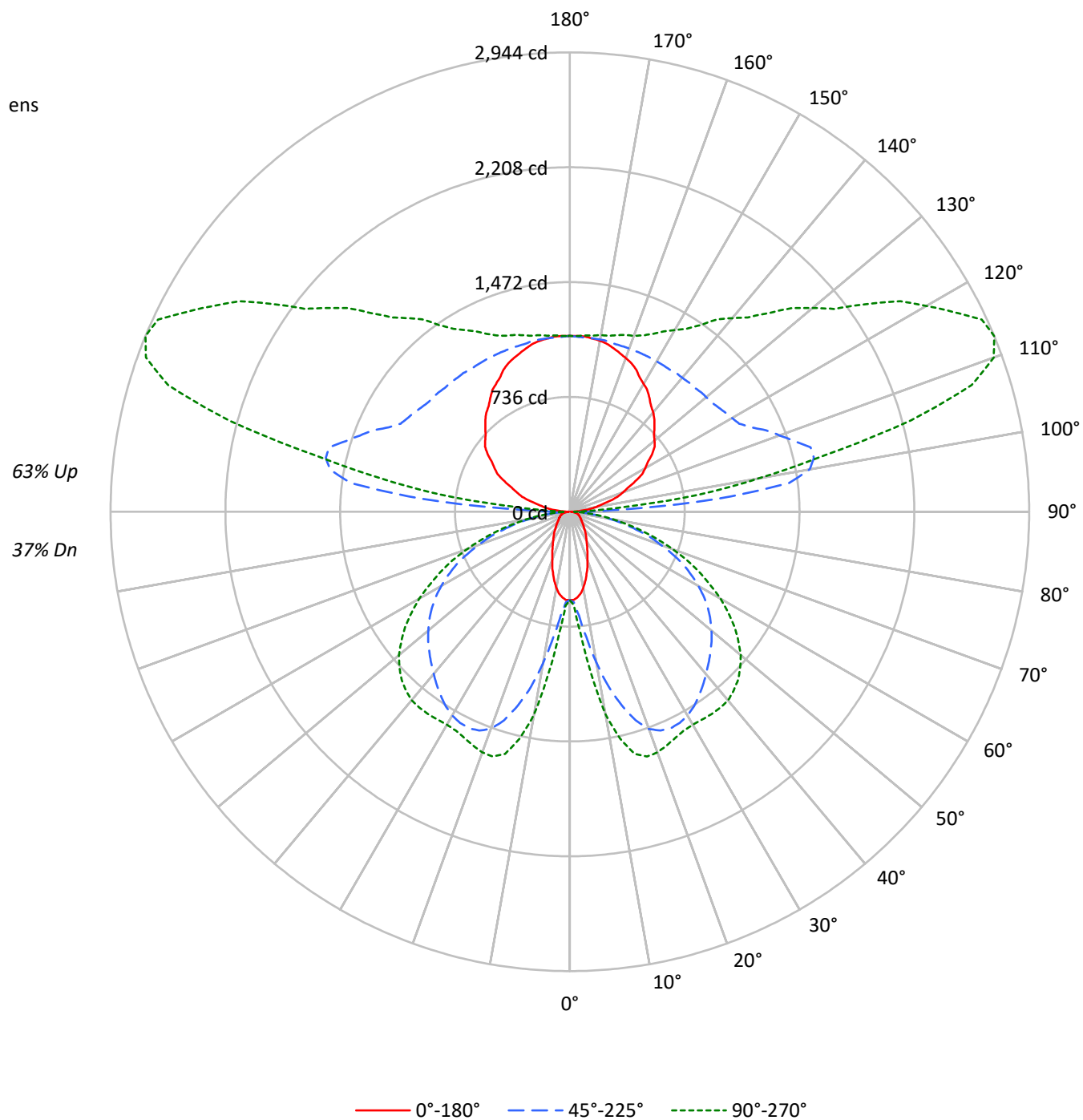
Lumens per Lamp: N/A
Luminaire Lumens: 11690.7 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 98.4
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

TEST NUMBER: P937546

CATALOG NUMBER: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-4000K

Luminous Intensity Polar Plot



TEST NUMBER: P937546

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2625	2625	2625
5°	2564	3034	3529
10°	2326	4423	5850
15°	1977	5779	7064
20°	1610	6696	7199
25°	1343	7007	7053
30°	1132	7052	7040
35°	1001	6935	7222
40°	872	6783	7410
45°	790	6671	7439
50°	725	6570	7315
55°	694	6424	6992
60°	710	6141	6479
65°	739	5713	5775
70°	787	4982	4879
75°	872	4062	3807
80°	953	2817	2566
85°	848	1495	1313

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7439 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	0.6
10°-20°	324.4	2.8
20°-30°	567.4	4.9
30°-40°	730.4	6.2
40°-50°	815.9	7.0
50°-60°	781.4	6.7
60°-70°	619.2	5.3
70°-80°	364.1	3.1
80°-90°	105.5	0.9
90°-100°	549.6	4.7
100°-110°	1444.9	12.4
110°-120°	1498.2	12.8
120°-130°	1201.8	10.3
130°-140°	943.0	8.1
140°-150°	723.8	6.2
150°-160°	521.2	4.5
160°-170°	318.9	2.7
170°-180°	107.7	0.9
0°-30°	965.0	8.3
0°-40°	1695.4	14.5
0°-60°	3292.7	28.2
0°-90°	4381.5	37.5
90°-120°	3492.8	29.9
90°-150°	6361.3	54.4
90°-180°	7309.0	62.5
0°-180°	11690.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	551	591	666	753	780	51
15°	413	762	1284	1557	1606	115
25°	264	864	1530	1597	1599	122
35°	178	826	1441	1523	1583	111
45°	122	659	1274	1459	1525	94
55°	87	418	1081	1255	1290	80
65°	69	222	802	902	915	69
75°	51	136	440	484	486	53
85°	18	42	109	120	122	19
90°	8	21	58	29	29	7
95°	73	284	947	488	332	81
105°	260	394	1597	2425	2262	276
115°	462	562	1280	2552	2913	457
125°	643	721	1164	1967	2320	571
135°	767	844	1128	1588	1800	593
145°	889	946	1113	1354	1460	557
155°	1005	1033	1113	1222	1258	462
165°	1084	1099	1113	1157	1171	306
175°	1128	1128	1121	1135	1135	107
180°	1128	1128	1128	1128	1128	

TEST NUMBER: P937546

CATALOG NUMBER: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8
2.5°	565.8	565.8	569.4	571.3	574.9	576.7	580.3	584.0	594.9	596.7	600.4
5°	551.2	558.5	582.2	591.3	616.7	651.3	665.9	689.5	738.6	753.2	762.3
7.5°	529.4	545.8	604.0	618.6	682.2	773.2	811.4	862.3	940.6	978.8	1009.7
10°	494.8	529.4	633.1	667.7	771.4	909.6	980.6	1051.6	1169.9	1222.6	1242.7
12.5°	456.6	513.0	664.0	711.3	860.5	1062.5	1148.1	1226.3	1360.9	1431.9	1442.8
15°	413.0	489.4	693.1	762.3	955.1	1189.9	1284.5	1380.9	1506.4	1557.4	1570.1
17.5°	374.8	471.2	720.4	793.2	1027.9	1304.5	1400.9	1481.0	1582.9	1617.4	1626.5
20°	327.5	442.1	738.6	833.2	1104.4	1388.2	1481.0	1542.8	1612.0	1633.8	1637.4
22.5°	292.9	411.2	749.5	847.8	1155.3	1439.1	1517.4	1566.5	1613.8	1621.1	1622.9
25°	263.8	376.6	747.7	864.2	1199.0	1470.1	1530.1	1566.5	1593.8	1597.4	1597.4
27.5°	236.5	338.4	740.4	867.8	1231.7	1477.3	1524.6	1550.1	1562.8	1570.1	1570.1
30°	212.9	302.0	722.3	860.5	1246.3	1470.1	1508.3	1521.0	1533.7	1544.7	1550.1
32.5°	194.7	267.4	695.0	846.0	1248.1	1451.9	1479.2	1486.4	1504.6	1530.1	1539.2
35°	178.3	232.9	664.0	826.0	1237.2	1422.8	1441.0	1448.2	1484.6	1522.8	1535.6
37.5°	161.9	207.4	624.0	791.4	1220.8	1388.2	1400.9	1413.7	1470.1	1515.5	1530.1
40°	145.5	185.6	576.7	753.2	1195.4	1346.4	1357.3	1377.3	1451.9	1504.6	1519.2
42.5°	132.8	167.4	525.8	713.2	1162.6	1299.1	1315.4	1344.5	1430.0	1486.4	1502.8
45°	121.9	149.2	471.2	658.6	1120.8	1249.9	1273.6	1313.6	1404.6	1459.1	1473.7
47.5°	111.0	136.4	414.8	602.2	1075.3	1200.8	1231.7	1277.2	1370.0	1422.8	1435.5
50°	101.9	123.7	358.4	542.1	1026.1	1148.1	1184.4	1231.7	1326.3	1375.5	1391.8
52.5°	94.6	112.8	305.6	482.1	969.7	1093.5	1135.3	1184.4	1273.6	1320.9	1331.8
55°	87.3	103.7	260.2	418.4	911.5	1035.3	1080.7	1128.0	1215.4	1255.4	1262.7
57.5°	83.7	96.4	222.0	358.4	849.6	969.7	1020.6	1064.4	1146.2	1177.2	1184.4
60°	78.2	91.0	192.8	307.5	782.3	907.8	951.5	995.1	1064.4	1089.8	1095.3
62.5°	72.8	87.3	171.0	258.3	713.2	835.0	878.7	918.7	977.0	995.1	1002.4
65°	69.1	83.7	154.6	222.0	642.2	758.6	802.3	836.9	884.2	902.4	906.0
67.5°	65.5	80.0	141.9	191.0	571.3	682.2	715.0	747.7	784.1	802.3	804.1
70°	60.0	76.4	131.0	169.2	498.5	594.9	622.2	656.8	685.9	695.0	700.4
72.5°	56.4	71.0	123.7	152.8	423.9	511.2	536.7	556.7	582.2	591.3	591.3
75°	50.9	63.7	116.4	136.4	347.5	418.4	440.3	460.3	480.3	483.9	478.5
77.5°	45.5	56.4	100.1	114.6	271.1	331.1	349.3	360.2	376.6	380.2	382.0
80°	38.2	49.1	78.2	89.1	196.5	243.8	256.5	265.6	280.2	280.2	283.8
82.5°	29.1	38.2	56.4	63.7	132.8	167.4	178.3	183.7	192.8	192.8	192.8
85°	18.2	23.7	36.4	41.8	80.0	101.9	109.2	111.0	118.3	120.1	120.1
87.5°	9.1	12.7	23.7	25.5	41.8	52.8	52.8	56.4	56.4	54.6	52.8
90°	7.5	13.6	19.6	21.2	33.3	49.4	57.5	51.1	38.3	28.7	28.7
92.5°	30.3	81.8	133.3	146.1	205.3	284.4	323.8	283.8	203.8	143.8	138.1
95°	72.7	166.8	261.0	284.5	505.2	799.5	946.7	844.8	640.9	488.1	470.8
97.5°	125.6	208.7	291.8	312.6	680.6	1171.2	1416.6	1352.2	1223.4	1126.8	1093.8
100°	166.5	241.8	317.2	336.0	744.4	1288.9	1561.1	1565.8	1575.2	1582.3	1543.0
102.5°	201.3	271.5	341.8	359.4	773.6	1325.8	1602.0	1684.0	1848.2	1971.3	1937.6
105°	260.3	319.8	379.3	394.2	795.3	1330.1	1597.4	1781.3	2149.3	2425.3	2407.2
107.5°	320.8	376.3	431.8	445.7	799.4	1270.9	1506.6	1763.2	2276.5	2661.3	2665.7
110°	361.7	411.8	461.9	474.5	793.3	1218.4	1430.9	1717.8	2291.6	2721.9	2740.7

TEST NUMBER: P937546

CATALOG NUMBER: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	401.8	449.5	497.4	509.3	793.6	1172.6	1362.1	1655.7	2242.9	2683.3	2712.3
115°	462.4	506.4	550.5	561.5	800.8	1120.0	1279.6	1562.5	2128.2	2552.4	2592.6
117.5°	522.1	562.2	602.2	612.2	815.8	1087.1	1222.8	1478.1	1988.6	2371.5	2416.0
120°	557.0	594.6	632.3	641.7	827.9	1076.1	1200.2	1433.4	1899.9	2249.7	2292.9
122.5°	591.0	629.0	667.0	676.5	845.2	1070.2	1182.7	1392.7	1812.8	2127.9	2170.6
125°	643.2	677.9	712.5	721.2	868.7	1065.5	1163.8	1342.3	1699.1	1966.7	2006.0
127.5°	685.6	720.5	755.5	764.3	892.2	1062.7	1148.0	1301.1	1607.5	1837.3	1870.4
130°	708.2	745.9	783.6	793.0	909.3	1064.4	1141.9	1278.2	1551.0	1755.6	1786.2
132.5°	731.7	769.4	807.0	816.5	923.2	1065.5	1136.6	1258.7	1502.8	1685.9	1713.3
135°	766.6	800.8	835.2	843.8	938.4	1064.5	1127.5	1229.7	1434.2	1587.6	1611.2
137.5°	802.1	836.0	870.1	878.5	961.0	1071.0	1125.9	1212.4	1385.3	1514.9	1534.3
140°	831.6	862.9	894.2	902.0	974.9	1072.1	1120.7	1195.4	1344.7	1456.7	1474.8
142.5°	854.3	883.3	912.2	919.4	986.5	1075.9	1120.7	1186.3	1317.4	1415.8	1431.4
145°	889.2	914.4	939.7	945.9	1001.7	1076.0	1113.1	1166.8	1274.0	1354.5	1366.3
147.5°	923.9	948.5	973.0	979.2	1023.9	1083.4	1113.1	1155.3	1239.7	1303.1	1312.8
150°	946.7	968.9	991.0	996.6	1035.4	1087.2	1113.1	1148.8	1220.1	1273.6	1281.5
152.5°	970.1	987.0	1003.8	1008.0	1043.0	1089.7	1113.1	1143.6	1204.5	1250.1	1256.1
155°	1004.9	1017.3	1029.8	1032.9	1059.6	1095.3	1113.1	1137.3	1185.8	1222.1	1226.0
157.5°	1030.6	1042.7	1054.9	1057.9	1076.3	1100.8	1113.1	1132.0	1169.6	1197.9	1200.6
160°	1048.1	1057.5	1066.9	1069.3	1083.9	1103.4	1113.1	1129.3	1161.6	1185.8	1187.4
162.5°	1065.5	1072.6	1079.6	1081.4	1091.9	1106.0	1113.1	1126.8	1154.0	1174.4	1176.0
165°	1084.4	1090.7	1097.1	1098.8	1103.6	1109.9	1113.1	1122.9	1142.4	1157.1	1158.7
167.5°	1101.8	1104.8	1107.8	1108.6	1112.6	1117.9	1120.7	1127.0	1139.9	1149.4	1150.1
170°	1113.1	1116.1	1119.2	1119.9	1120.2	1120.5	1120.7	1127.0	1139.9	1149.4	1149.4
172.5°	1119.2	1119.9	1120.5	1120.7	1120.7	1120.7	1120.7	1125.8	1135.9	1143.4	1142.9
175°	1127.5	1127.5	1127.5	1127.5	1125.2	1122.2	1120.7	1123.9	1130.2	1135.0	1135.0
177.5°	1127.5	1127.5	1127.5	1127.5	1125.8	1123.4	1122.2	1124.8	1129.8	1133.6	1133.0
180°	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	565.8	565.8
2.5°	604.0	600.4
5°	776.8	780.5
7.5°	1046.2	1044.4
10°	1300.9	1317.2
12.5°	1486.4	1490.1
15°	1599.2	1606.5
17.5°	1642.9	1644.7
20°	1644.7	1641.1
22.5°	1624.7	1621.1
25°	1601.1	1599.2
27.5°	1579.2	1581.0
30°	1570.1	1575.6
32.5°	1570.1	1579.2
35°	1573.8	1582.9
37.5°	1571.9	1582.9
40°	1564.7	1577.4
42.5°	1544.7	1553.8
45°	1513.7	1524.6
47.5°	1473.7	1481.0
50°	1422.8	1430.0
52.5°	1359.1	1360.9
55°	1282.7	1290.0
57.5°	1200.8	1202.6
60°	1109.8	1115.3
62.5°	1013.3	1013.3
65°	911.5	915.1
67.5°	805.9	815.0
70°	698.6	700.4
72.5°	593.1	593.1
75°	483.9	485.7
77.5°	380.2	380.2
80°	282.0	283.8
82.5°	194.7	198.3
85°	121.9	121.9
87.5°	56.4	50.9
90°	28.7	28.7
92.5°	115.3	92.3
95°	401.5	332.2
97.5°	961.9	830.1
100°	1386.0	1228.9
102.5°	1803.1	1668.5
105°	2334.9	2262.5
107.5°	2683.2	2700.7
110°	2816.1	2891.4

TEST NUMBER: P937546

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2827.9	2943.6
115°	2752.9	2913.4
117.5°	2593.9	2771.8
120°	2465.8	2638.7
122.5°	2341.0	2511.5
125°	2163.0	2320.1
127.5°	2002.9	2135.5
130°	1908.6	2031.0
132.5°	1823.0	1932.6
135°	1705.8	1800.3
137.5°	1611.6	1689.0
140°	1547.0	1619.3
142.5°	1493.6	1555.8
145°	1413.4	1460.4
147.5°	1351.8	1390.8
150°	1313.1	1344.7
152.5°	1280.0	1303.8
155°	1241.8	1257.7
157.5°	1211.7	1222.8
160°	1193.8	1200.2
162.5°	1182.0	1188.1
165°	1165.1	1171.4
167.5°	1152.8	1155.5
170°	1149.4	1149.4
172.5°	1140.5	1138.1
175°	1135.0	1135.0
177.5°	1130.2	1127.5
180°	1127.5	1127.5

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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	3.09	3.88	4.14	4.94	6.37	16.27	17.06	17.32	18.11	19.55
	3H	3.79	4.50	4.85	5.56	7.02	18.10	18.81	19.16	19.88	21.33
	4H	4.09	4.76	5.16	5.83	7.29	18.74	19.41	19.82	20.48	21.95
	6H	4.33	4.95	5.41	6.02	7.50	19.17	19.79	20.25	20.86	22.34
	8H	4.40	4.99	5.48	6.08	7.54	19.29	19.88	20.38	20.97	22.44
	12H	4.41	4.97	5.50	6.06	7.55	19.36	19.91	20.45	21.00	22.49
4H	2H	10.30	10.97	11.38	12.04	13.50	16.53	17.20	17.61	18.27	19.74
	3H	11.86	12.42	12.94	13.51	14.99	18.57	19.13	19.66	20.23	21.71
	4H	11.95	12.46	13.04	13.55	15.05	19.34	19.85	20.43	20.94	22.43
	6H	11.95	12.40	13.05	13.51	15.00	19.87	20.31	20.97	21.42	22.91
	8H	11.93	12.34	13.03	13.45	14.95	20.03	20.44	21.13	21.55	23.05
	12H	11.88	12.26	13.00	13.37	14.88	20.12	20.50	21.24	21.61	23.12
8H	4H	13.39	13.80	14.49	14.90	16.41	19.39	19.80	20.49	20.91	22.41
	6H	13.63	13.97	14.75	15.11	16.61	20.02	20.36	21.14	21.50	23.01
	8H	13.64	13.94	14.77	15.07	16.59	20.23	20.53	21.36	21.66	23.18
	12H	13.61	13.87	14.74	14.99	16.55	20.38	20.64	21.51	21.76	23.32
12H	4H	13.53	13.90	14.64	15.02	16.53	19.34	19.71	20.46	20.83	22.34
	6H	13.88	14.18	15.01	15.31	16.83	20.00	20.30	21.13	21.42	22.95
	8H	13.95	14.21	15.08	15.34	16.89	20.22	20.49	21.36	21.61	23.17