

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: P937512

Luminaire Tested: SQ4-FB-100U-075D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937512
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-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

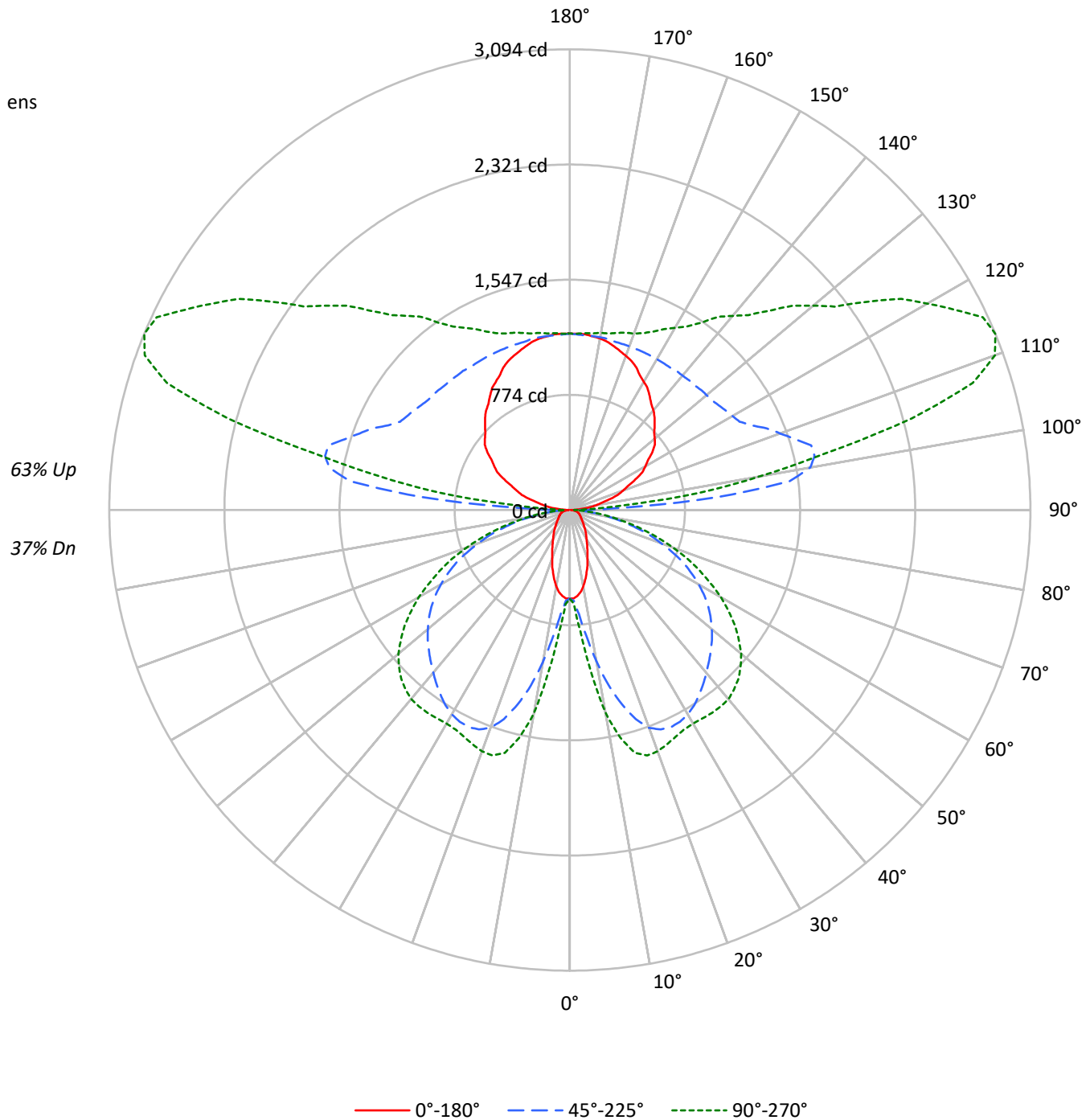
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12286.5 lumens
Efficiency: N/A
Efficacy: 124.9 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 (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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2759	2759	2759
5°	2695	3189	3708
10°	2445	4648	6148
15°	2078	6073	7424
20°	1692	7038	7566
25°	1411	7365	7412
30°	1190	7411	7398
35°	1052	7288	7589
40°	917	7128	7787
45°	830	7011	7818
50°	762	6906	7688
55°	730	6751	7348
60°	747	6455	6810
65°	777	6004	6069
70°	828	5236	5128
75°	916	4269	4002
80°	1003	2961	2697
85°	890	1570	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	0.6
10°-20°	340.9	2.8
20°-30°	596.3	4.9
30°-40°	767.6	6.2
40°-50°	857.4	7.0
50°-60°	821.2	6.7
60°-70°	650.8	5.3
70°-80°	382.7	3.1
80°-90°	110.8	0.9
90°-100°	577.6	4.7
100°-110°	1518.6	12.4
110°-120°	1574.6	12.8
120°-130°	1263.0	10.3
130°-140°	991.0	8.1
140°-150°	760.7	6.2
150°-160°	547.8	4.5
160°-170°	335.2	2.7
170°-180°	113.2	0.9
0°-30°	1014.2	8.3
0°-40°	1781.8	14.5
0°-60°	3460.5	28.2
0°-90°	4604.8	37.5
90°-120°	3670.8	29.9
90°-150°	6685.5	54.4
90°-180°	7682.0	62.5
0°-180°	12286.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	579	621	700	792	820	53
15°	434	801	1350	1637	1688	121
25°	277	908	1608	1679	1681	128
35°	187	868	1514	1600	1664	117
45°	128	692	1338	1534	1602	99
55°	92	440	1136	1319	1356	84
65°	73	233	843	948	962	72
75°	54	143	463	509	510	56
85°	19	44	115	126	128	20
90°	8	22	60	30	30	8
95°	76	299	995	513	349	85
105°	274	414	1679	2549	2378	290
115°	486	590	1345	2682	3062	480
125°	676	758	1223	2067	2438	600
135°	806	887	1185	1668	1892	623
145°	934	994	1170	1424	1535	585
155°	1056	1086	1170	1284	1322	485
165°	1140	1155	1170	1216	1231	322
175°	1185	1185	1178	1193	1193	112
180°	1185	1185	1185	1185	1185	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6
2.5°	594.6	594.6	598.5	600.4	604.2	606.1	609.9	613.8	625.2	627.1	631.0
5°	579.3	587.0	611.8	621.4	648.2	684.5	699.8	724.6	776.3	791.6	801.1
7.5°	556.4	573.6	634.8	650.1	717.0	812.6	852.8	906.3	988.5	1028.7	1061.2
10°	520.1	556.4	665.4	701.7	810.7	956.0	1030.6	1105.2	1229.5	1285.0	1306.0
12.5°	479.9	539.2	697.9	747.6	904.4	1116.7	1206.6	1288.8	1430.3	1504.8	1516.3
15°	434.0	514.3	728.5	801.1	1003.8	1250.5	1350.0	1451.3	1583.2	1636.8	1650.2
17.5°	393.9	495.2	757.2	833.6	1080.3	1371.0	1472.3	1556.5	1663.5	1699.9	1709.4
20°	344.2	464.6	776.3	875.7	1160.7	1459.0	1556.5	1621.5	1694.1	1717.1	1720.9
22.5°	307.8	432.1	787.7	891.0	1214.2	1512.5	1594.7	1646.3	1696.0	1703.7	1705.6
25°	277.2	395.8	785.8	908.2	1260.1	1545.0	1608.1	1646.3	1675.0	1678.8	1678.8
27.5°	248.6	355.6	778.2	912.0	1294.5	1552.6	1602.4	1629.1	1642.5	1650.2	1650.2
30°	223.7	317.4	759.1	904.4	1309.8	1545.0	1585.1	1598.5	1611.9	1623.4	1629.1
32.5°	204.6	281.1	730.4	889.1	1311.7	1525.9	1554.6	1562.2	1581.3	1608.1	1617.6
35°	187.4	244.7	697.9	868.0	1300.3	1495.3	1514.4	1522.0	1560.3	1600.4	1613.8
37.5°	170.2	218.0	655.8	831.7	1283.0	1459.0	1472.3	1485.7	1545.0	1592.8	1608.1
40°	153.0	195.0	606.1	791.6	1256.3	1415.0	1426.4	1447.5	1525.9	1581.3	1596.6
42.5°	139.6	175.9	552.6	749.5	1221.9	1365.3	1382.5	1413.1	1502.9	1562.2	1579.4
45°	128.1	156.8	495.2	692.1	1177.9	1313.6	1338.5	1380.6	1476.2	1533.5	1548.8
47.5°	116.6	143.4	435.9	632.9	1130.1	1262.0	1294.5	1342.3	1439.8	1495.3	1508.7
50°	107.1	130.0	376.7	569.8	1078.4	1206.6	1244.8	1294.5	1393.9	1445.6	1462.8
52.5°	99.4	118.5	321.2	506.7	1019.1	1149.2	1193.2	1244.8	1338.5	1388.2	1399.7
55°	91.8	109.0	273.4	439.8	957.9	1088.0	1135.8	1185.5	1277.3	1319.4	1327.0
57.5°	88.0	101.3	233.3	376.7	892.9	1019.1	1072.6	1118.6	1204.7	1237.2	1244.8
60°	82.2	95.6	202.7	323.1	822.2	954.1	1000.0	1045.9	1118.6	1145.4	1151.1
62.5°	76.5	91.8	179.7	271.5	749.5	877.6	923.5	965.6	1026.7	1045.9	1053.5
65°	72.7	88.0	162.5	233.3	674.9	797.3	843.2	879.5	929.2	948.4	952.2
67.5°	68.8	84.1	149.1	200.8	600.4	717.0	751.4	785.8	824.1	843.2	845.1
70°	63.1	80.3	137.7	177.8	523.9	625.2	653.9	690.2	720.8	730.4	736.1
72.5°	59.3	74.6	130.0	160.6	445.5	537.3	564.0	585.1	611.8	621.4	621.4
75°	53.5	66.9	122.4	143.4	365.2	439.8	462.7	483.7	504.8	508.6	502.9
77.5°	47.8	59.3	105.2	120.5	284.9	348.0	367.1	378.6	395.8	399.6	401.5
80°	40.2	51.6	82.2	93.7	206.5	256.2	269.6	279.2	294.4	294.4	298.3
82.5°	30.6	40.2	59.3	66.9	139.6	175.9	187.4	193.1	202.7	202.7	202.7
85°	19.1	24.9	38.2	44.0	84.1	107.1	114.7	116.6	124.3	126.2	126.2
87.5°	9.6	13.4	24.9	26.8	44.0	55.4	55.4	59.3	59.3	57.4	55.4
90°	7.9	14.3	20.6	22.3	35.0	51.9	60.4	53.7	40.2	30.2	30.2
92.5°	31.8	85.9	140.1	153.5	215.8	298.8	340.3	298.3	214.2	151.1	145.1
95°	76.4	175.3	274.3	299.0	531.0	840.2	994.9	887.8	673.6	513.0	494.8
97.5°	132.0	219.3	306.7	328.5	715.3	1230.9	1488.8	1421.1	1285.7	1184.2	1149.6
100°	174.9	254.1	333.4	353.1	782.3	1354.6	1640.7	1645.7	1655.5	1663.0	1621.7
102.5°	211.6	285.4	359.3	377.7	813.0	1393.4	1683.6	1769.8	1942.4	2071.7	2036.4
105°	273.6	336.1	398.7	414.3	835.8	1397.9	1678.8	1872.1	2258.8	2548.9	2529.9
107.5°	337.2	395.5	453.8	468.4	840.1	1335.6	1583.4	1853.1	2392.5	2797.0	2801.6
110°	380.1	432.8	485.5	498.6	833.7	1280.5	1503.9	1805.4	2408.4	2860.6	2880.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	422.3	472.5	522.7	535.3	834.0	1232.4	1431.5	1740.1	2357.2	2820.1	2850.5
115°	485.9	532.2	578.6	590.1	841.7	1177.1	1344.8	1642.1	2236.7	2682.5	2724.7
117.5°	548.7	590.8	632.9	643.4	857.3	1142.5	1285.2	1553.4	2090.0	2492.4	2539.1
120°	585.4	624.9	664.5	674.4	870.1	1130.9	1261.3	1506.5	1996.7	2364.4	2409.8
122.5°	621.1	661.1	701.0	711.0	888.3	1124.7	1243.0	1463.7	1905.2	2236.4	2281.2
125°	676.0	712.4	748.8	757.9	913.0	1119.8	1223.1	1410.7	1785.7	2067.0	2108.3
127.5°	720.5	757.2	794.1	803.2	937.6	1116.9	1206.5	1367.5	1689.4	1930.9	1965.7
130°	744.3	783.9	823.5	833.4	955.6	1118.6	1200.1	1343.4	1630.1	1845.1	1877.2
132.5°	769.0	808.6	848.2	858.1	970.2	1119.8	1194.5	1322.8	1579.4	1771.9	1800.6
135°	805.6	841.7	877.8	886.8	986.2	1118.7	1185.0	1292.4	1507.3	1668.5	1693.4
137.5°	843.0	878.7	914.4	923.3	1010.0	1125.6	1183.3	1274.2	1455.9	1592.1	1612.5
140°	874.0	906.9	939.7	948.0	1024.5	1126.7	1177.8	1256.3	1413.3	1530.9	1550.0
142.5°	897.9	928.3	958.7	966.2	1036.8	1130.8	1177.8	1246.7	1384.6	1488.0	1504.4
145°	934.5	961.0	987.5	994.1	1052.7	1130.9	1169.9	1226.3	1339.0	1423.6	1435.9
147.5°	971.0	996.8	1022.6	1029.1	1076.1	1138.6	1169.9	1214.2	1302.9	1369.5	1379.7
150°	994.9	1018.2	1041.6	1047.4	1088.2	1142.6	1169.9	1207.3	1282.3	1338.5	1346.8
152.5°	1019.6	1037.3	1054.9	1059.3	1096.1	1145.3	1169.9	1201.9	1265.8	1313.8	1320.1
155°	1056.1	1069.2	1082.3	1085.5	1113.6	1151.1	1169.9	1195.3	1246.2	1284.4	1288.5
157.5°	1083.1	1095.9	1108.7	1111.8	1131.1	1157.0	1169.9	1189.6	1229.2	1259.0	1261.8
160°	1101.5	1111.4	1121.3	1123.8	1139.2	1159.6	1169.9	1186.9	1220.8	1246.2	1248.0
162.5°	1119.8	1127.2	1134.7	1136.5	1147.6	1162.4	1169.9	1184.2	1212.8	1234.3	1235.9
165°	1139.6	1146.3	1153.0	1154.8	1159.8	1166.5	1169.9	1180.1	1200.6	1216.0	1217.8
167.5°	1157.9	1161.1	1164.3	1165.1	1169.3	1174.9	1177.8	1184.5	1198.0	1208.0	1208.7
170°	1169.9	1173.0	1176.3	1177.0	1177.3	1177.6	1177.8	1184.5	1198.0	1208.0	1208.0
172.5°	1176.3	1176.9	1177.6	1177.8	1177.8	1177.8	1177.8	1183.1	1193.8	1201.7	1201.1
175°	1185.0	1185.0	1185.0	1185.0	1182.6	1179.4	1177.8	1181.1	1187.8	1192.9	1192.9
177.5°	1185.0	1185.0	1185.0	1185.0	1183.1	1180.7	1179.4	1182.1	1187.4	1191.4	1190.7
180°	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	594.6	594.6
2.5°	634.8	631.0
5°	816.4	820.2
7.5°	1099.5	1097.6
10°	1367.2	1384.4
12.5°	1562.2	1566.0
15°	1680.7	1688.4
17.5°	1726.6	1728.5
20°	1728.5	1724.7
22.5°	1707.5	1703.7
25°	1682.7	1680.7
27.5°	1659.7	1661.6
30°	1650.2	1655.9
32.5°	1650.2	1659.7
35°	1654.0	1663.5
37.5°	1652.1	1663.5
40°	1644.4	1657.8
42.5°	1623.4	1632.9
45°	1590.9	1602.4
47.5°	1548.8	1556.5
50°	1495.3	1502.9
52.5°	1428.4	1430.3
55°	1348.1	1355.7
57.5°	1262.0	1263.9
60°	1166.4	1172.2
62.5°	1065.0	1065.0
65°	957.9	961.7
67.5°	847.0	856.6
70°	734.2	736.1
72.5°	623.3	623.3
75°	508.6	510.5
77.5°	399.6	399.6
80°	296.4	298.3
82.5°	204.6	208.4
85°	128.1	128.1
87.5°	59.3	53.5
90°	30.2	30.2
92.5°	121.1	97.0
95°	422.0	349.1
97.5°	1011.0	872.4
100°	1456.7	1291.6
102.5°	1895.0	1753.6
105°	2453.9	2377.9
107.5°	2820.0	2838.4
110°	2959.6	3038.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2972.0	3093.6
115°	2893.2	3061.9
117.5°	2726.1	2913.1
120°	2591.5	2773.2
122.5°	2460.4	2639.5
125°	2273.3	2438.4
127.5°	2105.0	2244.3
130°	2005.9	2134.6
132.5°	1915.9	2031.1
135°	1792.7	1892.0
137.5°	1693.7	1775.1
140°	1625.9	1701.9
142.5°	1569.8	1635.1
145°	1485.4	1534.9
147.5°	1420.7	1461.7
150°	1380.0	1413.3
152.5°	1345.2	1370.2
155°	1305.1	1321.8
157.5°	1273.5	1285.2
160°	1254.7	1261.3
162.5°	1242.2	1248.6
165°	1224.4	1231.1
167.5°	1211.5	1214.4
170°	1208.0	1208.0
172.5°	1198.6	1196.1
175°	1192.9	1192.9
177.5°	1187.8	1185.0
180°	1185.0	1185.0



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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	3.26	4.05	4.32	5.11	6.55	16.44	17.23	17.49	18.29	19.72
	3H	3.96	4.67	5.02	5.74	7.19	18.28	18.98	19.34	20.05	21.50
	4H	4.26	4.93	5.33	6.00	7.46	18.92	19.59	19.99	20.66	22.12
	6H	4.50	5.12	5.59	6.20	7.67	19.34	19.96	20.43	21.03	22.51
	8H	4.57	5.16	5.66	6.25	7.72	19.46	20.05	20.55	21.14	22.61
	12H	4.59	5.14	5.68	6.23	7.72	19.53	20.09	20.62	21.17	22.66
4H	2H	10.47	11.14	11.55	12.21	13.67	16.71	17.38	17.79	18.45	19.91
	3H	12.03	12.59	13.12	13.69	15.16	18.75	19.31	19.83	20.40	21.88
	4H	12.12	12.64	13.21	13.72	15.22	19.51	20.02	20.60	21.11	22.61
	6H	12.13	12.57	13.23	13.68	15.17	20.04	20.49	21.14	21.60	23.09
	8H	12.10	12.52	13.20	13.62	15.12	20.20	20.62	21.30	21.72	23.23
	12H	12.06	12.43	13.17	13.55	15.06	20.29	20.67	21.41	21.78	23.30
8H	4H	13.56	13.97	14.66	15.08	16.58	19.56	19.98	20.66	21.08	22.58
	6H	13.80	14.14	14.92	15.29	16.79	20.19	20.53	21.31	21.68	23.18
	8H	13.82	14.11	14.94	15.24	16.76	20.41	20.71	21.54	21.83	23.36
	12H	13.78	14.04	14.91	15.17	16.72	20.55	20.81	21.68	21.93	23.49
12H	4H	13.70	14.07	14.82	15.19	16.70	19.51	19.89	20.63	21.00	22.51
	6H	14.06	14.36	15.19	15.48	17.00	20.17	20.47	21.30	21.60	23.12
	8H	14.12	14.39	15.26	15.51	17.07	20.40	20.66	21.53	21.78	23.34