

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: P937548

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937548
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-8-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

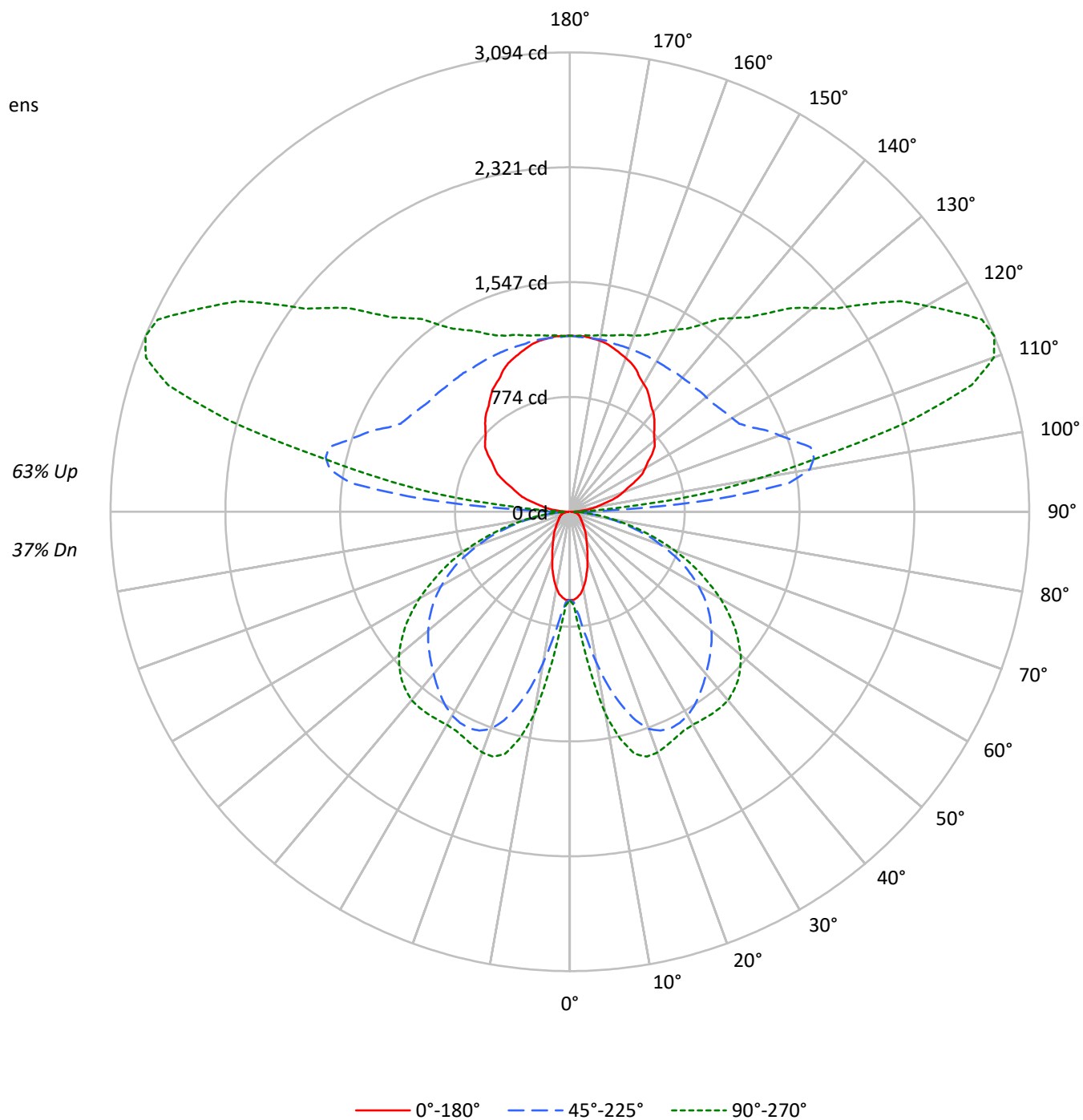
Lumens per Lamp: N/A
Luminaire Lumens: 12289.0 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 98.4
Input Voltage (V): NR
Input Current (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: P937548

CATALOG NUMBER: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-6500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2760	2760	2760
5°	2696	3189	3709
10°	2445	4649	6150
15°	2078	6074	7425
20°	1692	7039	7568
25°	1411	7366	7414
30°	1190	7413	7400
35°	1052	7289	7591
40°	917	7129	7789
45°	830	7013	7820
50°	762	6907	7690
55°	730	6753	7349
60°	747	6456	6811
65°	777	6005	6071
70°	828	5237	5129
75°	916	4270	4002
80°	1003	2961	2697
85°	890	1570	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7820 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	0.6
10°-20°	341.0	2.8
20°-30°	596.4	4.9
30°-40°	767.8	6.2
40°-50°	857.6	7.0
50°-60°	821.4	6.7
60°-70°	650.9	5.3
70°-80°	382.8	3.1
80°-90°	110.9	0.9
90°-100°	577.8	4.7
100°-110°	1518.9	12.4
110°-120°	1574.9	12.8
120°-130°	1263.3	10.3
130°-140°	991.2	8.1
140°-150°	760.8	6.2
150°-160°	547.9	4.5
160°-170°	335.2	2.7
170°-180°	113.3	0.9
0°-30°	1014.4	8.3
0°-40°	1782.2	14.5
0°-60°	3461.2	28.2
0°-90°	4605.7	37.5
90°-120°	3671.6	29.9
90°-150°	6686.9	54.4
90°-180°	7683.0	62.5
0°-180°	12289.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	580	622	700	792	820	53
15°	434	801	1350	1637	1689	121
25°	277	908	1608	1679	1681	128
35°	187	868	1515	1601	1664	117
45°	128	692	1339	1534	1603	99
55°	92	440	1136	1320	1356	84
65°	73	233	843	948	962	72
75°	54	143	463	509	511	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	2683	3062	480
125°	676	758	1223	2067	2439	600
135°	806	887	1185	1669	1892	623
145°	935	994	1170	1424	1535	586
155°	1056	1086	1170	1285	1322	485
165°	1140	1155	1170	1216	1231	322
175°	1185	1185	1178	1193	1193	113
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°	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8
2.5°	594.8	594.8	598.6	600.5	604.3	606.2	610.1	613.9	625.4	627.3	631.1
5°	579.5	587.1	612.0	621.5	648.3	684.6	699.9	724.8	776.4	791.7	801.3
7.5°	556.5	573.7	634.9	650.2	717.1	812.8	852.9	906.5	988.7	1028.9	1061.4
10°	520.2	556.5	665.5	701.8	810.9	956.2	1030.8	1105.5	1229.8	1285.2	1306.3
12.5°	480.0	539.3	698.0	747.7	904.6	1116.9	1206.8	1289.0	1430.6	1505.1	1516.6
15°	434.1	514.4	728.6	801.3	1004.0	1250.8	1350.2	1451.6	1583.6	1637.1	1650.5
17.5°	394.0	495.3	757.3	833.8	1080.5	1371.3	1472.6	1556.8	1663.9	1700.2	1709.8
20°	344.2	464.7	776.4	875.9	1160.9	1459.2	1556.8	1621.8	1694.5	1717.4	1721.2
22.5°	307.9	432.2	787.9	891.2	1214.5	1512.8	1595.0	1646.7	1696.4	1704.0	1705.9
25°	277.3	395.9	786.0	908.4	1260.4	1545.3	1608.4	1646.7	1675.3	1679.2	1679.2
27.5°	248.6	355.7	778.3	912.2	1294.8	1553.0	1602.7	1629.4	1642.8	1650.5	1650.5
30°	223.7	317.5	759.2	904.6	1310.1	1545.3	1585.5	1598.9	1612.2	1623.7	1629.4
32.5°	204.6	281.1	730.5	889.3	1312.0	1526.2	1554.9	1562.5	1581.6	1608.4	1618.0
35°	187.4	244.8	698.0	868.2	1300.5	1495.6	1514.7	1522.4	1560.6	1600.8	1614.1
37.5°	170.2	218.0	655.9	831.9	1283.3	1459.2	1472.6	1486.0	1545.3	1593.1	1608.4
40°	153.0	195.1	606.2	791.7	1256.5	1415.3	1426.7	1447.8	1526.2	1581.6	1596.9
42.5°	139.6	175.9	552.7	749.7	1222.1	1365.5	1382.8	1413.3	1503.2	1562.5	1579.7
45°	128.1	156.8	495.3	692.3	1178.1	1313.9	1338.8	1380.8	1476.5	1533.8	1549.1
47.5°	116.7	143.4	436.0	633.0	1130.3	1262.3	1294.8	1342.6	1440.1	1495.6	1509.0
50°	107.1	130.0	376.7	569.9	1078.6	1206.8	1245.1	1294.8	1394.2	1445.9	1463.1
52.5°	99.4	118.6	321.3	506.8	1019.3	1149.4	1193.4	1245.1	1338.8	1388.5	1400.0
55°	91.8	109.0	273.5	439.8	958.1	1088.2	1136.1	1185.8	1277.6	1319.6	1327.3
57.5°	88.0	101.4	233.3	376.7	893.1	1019.3	1072.8	1118.8	1204.9	1237.4	1245.1
60°	82.2	95.6	202.7	323.2	822.3	954.3	1000.2	1046.1	1118.8	1145.6	1151.4
62.5°	76.5	91.8	179.8	271.6	749.7	877.8	923.7	965.8	1027.0	1046.1	1053.7
65°	72.7	88.0	162.6	233.3	675.1	797.5	843.4	879.7	929.4	948.5	952.4
67.5°	68.8	84.1	149.2	200.8	600.5	717.1	751.6	786.0	824.2	843.4	845.3
70°	63.1	80.3	137.7	177.9	524.0	625.4	654.0	690.4	721.0	730.5	736.3
72.5°	59.3	74.6	130.0	160.6	445.6	537.4	564.2	585.2	612.0	621.5	621.5
75°	53.5	66.9	122.4	143.4	365.3	439.8	462.8	483.8	504.9	508.7	503.0
77.5°	47.8	59.3	105.2	120.5	284.9	348.1	367.2	378.7	395.9	399.7	401.6
80°	40.2	51.6	82.2	93.7	206.5	256.3	269.6	279.2	294.5	294.5	298.3
82.5°	30.6	40.2	59.3	66.9	139.6	175.9	187.4	193.2	202.7	202.7	202.7
85°	19.1	24.9	38.2	44.0	84.1	107.1	114.7	116.7	124.3	126.2	126.2
87.5°	9.6	13.4	24.9	26.8	44.0	55.5	55.5	59.3	59.3	57.4	55.5
90°	7.9	14.3	20.7	22.3	35.0	51.9	60.4	53.7	40.3	30.2	30.2
92.5°	31.8	86.0	140.1	153.6	215.8	298.9	340.4	298.3	214.3	151.2	145.2
95°	76.4	175.4	274.3	299.1	531.1	840.4	995.1	888.0	673.7	513.1	494.9
97.5°	132.1	219.4	306.7	328.5	715.4	1231.2	1489.1	1421.4	1286.0	1184.4	1149.8
100°	175.0	254.2	333.4	353.2	782.5	1354.8	1641.0	1646.0	1655.8	1663.3	1622.0
102.5°	211.6	285.4	359.3	377.8	813.1	1393.7	1684.0	1770.2	1942.8	2072.2	2036.8
105°	273.7	336.2	398.7	414.4	836.0	1398.1	1679.2	1872.5	2259.3	2549.4	2530.4
107.5°	337.2	395.6	453.9	468.5	840.3	1335.9	1583.7	1853.5	2393.0	2797.5	2802.1
110°	380.2	432.9	485.6	498.8	833.9	1280.7	1504.2	1805.8	2408.8	2861.2	2881.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	422.4	472.6	522.8	535.4	834.2	1232.6	1431.8	1740.5	2357.7	2820.7	2851.1
115°	486.0	532.3	578.7	590.3	841.8	1177.4	1345.1	1642.5	2237.1	2683.1	2725.2
117.5°	548.9	590.9	633.0	643.5	857.5	1142.7	1285.4	1553.7	2090.4	2492.9	2539.6
120°	585.5	625.1	664.6	674.5	870.2	1131.2	1261.6	1506.8	1997.1	2364.9	2410.3
122.5°	621.2	661.2	701.2	711.1	888.5	1125.0	1243.2	1464.0	1905.6	2236.8	2281.7
125°	676.1	712.6	749.0	758.1	913.2	1120.0	1223.4	1411.0	1786.1	2067.4	2108.7
127.5°	720.7	757.4	794.2	803.4	937.8	1117.1	1206.7	1367.7	1689.8	1931.3	1966.1
130°	744.5	784.1	823.7	833.6	955.8	1118.8	1200.3	1343.6	1630.4	1845.5	1877.6
132.5°	769.2	808.7	848.3	858.3	970.4	1120.0	1194.8	1323.1	1579.7	1772.2	1801.0
135°	805.8	841.8	878.0	887.0	986.4	1118.9	1185.2	1292.7	1507.6	1668.8	1693.7
137.5°	843.2	878.8	914.6	923.5	1010.2	1125.8	1183.6	1274.4	1456.2	1592.4	1612.8
140°	874.2	907.0	939.9	948.2	1024.8	1127.0	1178.0	1256.5	1413.5	1531.2	1550.3
142.5°	898.1	928.5	958.9	966.4	1037.0	1131.0	1178.0	1247.0	1384.9	1488.3	1504.7
145°	934.7	961.2	987.7	994.3	1053.0	1131.1	1170.1	1226.5	1339.2	1423.9	1436.2
147.5°	971.2	997.0	1022.8	1029.3	1076.3	1138.8	1170.1	1214.5	1303.2	1369.7	1380.0
150°	995.1	1018.4	1041.8	1047.6	1088.4	1142.8	1170.1	1207.6	1282.5	1338.8	1347.1
152.5°	1019.8	1037.5	1055.2	1059.6	1096.4	1145.5	1170.1	1202.1	1266.1	1314.1	1320.4
155°	1056.3	1069.4	1082.5	1085.8	1113.9	1151.4	1170.1	1195.5	1246.5	1284.6	1288.8
157.5°	1083.4	1096.1	1108.9	1112.1	1131.4	1157.2	1170.1	1189.9	1229.5	1259.2	1262.1
160°	1101.7	1111.7	1121.5	1124.0	1139.4	1159.9	1170.1	1187.1	1221.1	1246.5	1248.2
162.5°	1120.0	1127.4	1134.9	1136.7	1147.8	1162.6	1170.1	1184.4	1213.0	1234.5	1236.2
165°	1139.9	1146.6	1153.3	1155.0	1160.1	1166.7	1170.1	1180.3	1200.9	1216.3	1218.0
167.5°	1158.1	1161.3	1164.5	1165.3	1169.5	1175.2	1178.0	1184.7	1198.2	1208.2	1208.9
170°	1170.1	1173.2	1176.5	1177.3	1177.6	1177.8	1178.0	1184.7	1198.2	1208.2	1208.2
172.5°	1176.5	1177.2	1177.8	1178.0	1178.0	1178.0	1178.0	1183.4	1194.0	1201.9	1201.4
175°	1185.2	1185.2	1185.2	1185.2	1182.8	1179.7	1178.0	1181.4	1188.1	1193.1	1193.1
177.5°	1185.2	1185.2	1185.2	1185.2	1183.4	1180.9	1179.7	1182.3	1187.6	1191.6	1190.9
180°	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	594.8	594.8
2.5°	634.9	631.1
5°	816.6	820.4
7.5°	1099.7	1097.8
10°	1367.5	1384.7
12.5°	1562.5	1566.3
15°	1681.1	1688.7
17.5°	1727.0	1728.9
20°	1728.9	1725.1
22.5°	1707.9	1704.0
25°	1683.0	1681.1
27.5°	1660.0	1662.0
30°	1650.5	1656.2
32.5°	1650.5	1660.0
35°	1654.3	1663.9
37.5°	1652.4	1663.9
40°	1644.7	1658.1
42.5°	1623.7	1633.3
45°	1591.2	1602.7
47.5°	1549.1	1556.8
50°	1495.6	1503.2
52.5°	1428.6	1430.6
55°	1348.3	1356.0
57.5°	1262.3	1264.2
60°	1166.7	1172.4
62.5°	1065.2	1065.2
65°	958.1	961.9
67.5°	847.2	856.7
70°	734.4	736.3
72.5°	623.4	623.4
75°	508.7	510.6
77.5°	399.7	399.7
80°	296.4	298.3
82.5°	204.6	208.5
85°	128.1	128.1
87.5°	59.3	53.5
90°	30.2	30.2
92.5°	121.1	97.1
95°	422.1	349.2
97.5°	1011.2	872.6
100°	1457.0	1291.8
102.5°	1895.4	1753.9
105°	2454.4	2378.3
107.5°	2820.6	2838.9
110°	2960.2	3039.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2972.6	3094.2
115°	2893.8	3062.5
117.5°	2726.7	2913.7
120°	2592.0	2773.7
122.5°	2460.9	2640.0
125°	2273.7	2438.9
127.5°	2105.4	2244.8
130°	2006.3	2135.0
132.5°	1916.3	2031.5
135°	1793.1	1892.4
137.5°	1694.1	1775.5
140°	1626.2	1702.2
142.5°	1570.1	1635.5
145°	1485.7	1535.2
147.5°	1421.0	1462.0
150°	1380.3	1413.5
152.5°	1345.5	1370.5
155°	1305.4	1322.0
157.5°	1273.7	1285.4
160°	1254.9	1261.6
162.5°	1242.5	1248.9
165°	1224.7	1231.4
167.5°	1211.8	1214.7
170°	1208.2	1208.2
172.5°	1198.9	1196.4
175°	1193.1	1193.1
177.5°	1188.1	1185.2
180°	1185.2	1185.2

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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	19.73
	3H	3.96	4.67	5.02	5.74	7.19	18.28	18.98	19.34	20.05	21.51
	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	6.19	7.67	19.34	19.96	20.43	21.04	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	15.13	20.20	20.62	21.31	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	22.59
	6H	13.80	14.14	14.92	15.29	16.79	20.19	20.53	21.31	21.68	23.18
	8H	13.82	14.12	14.95	15.24	16.76	20.41	20.71	21.54	21.83	23.36
	12H	13.78	14.04	14.91	15.17	16.73	20.55	20.81	21.68	21.94	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