

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: P937543

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937543
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-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

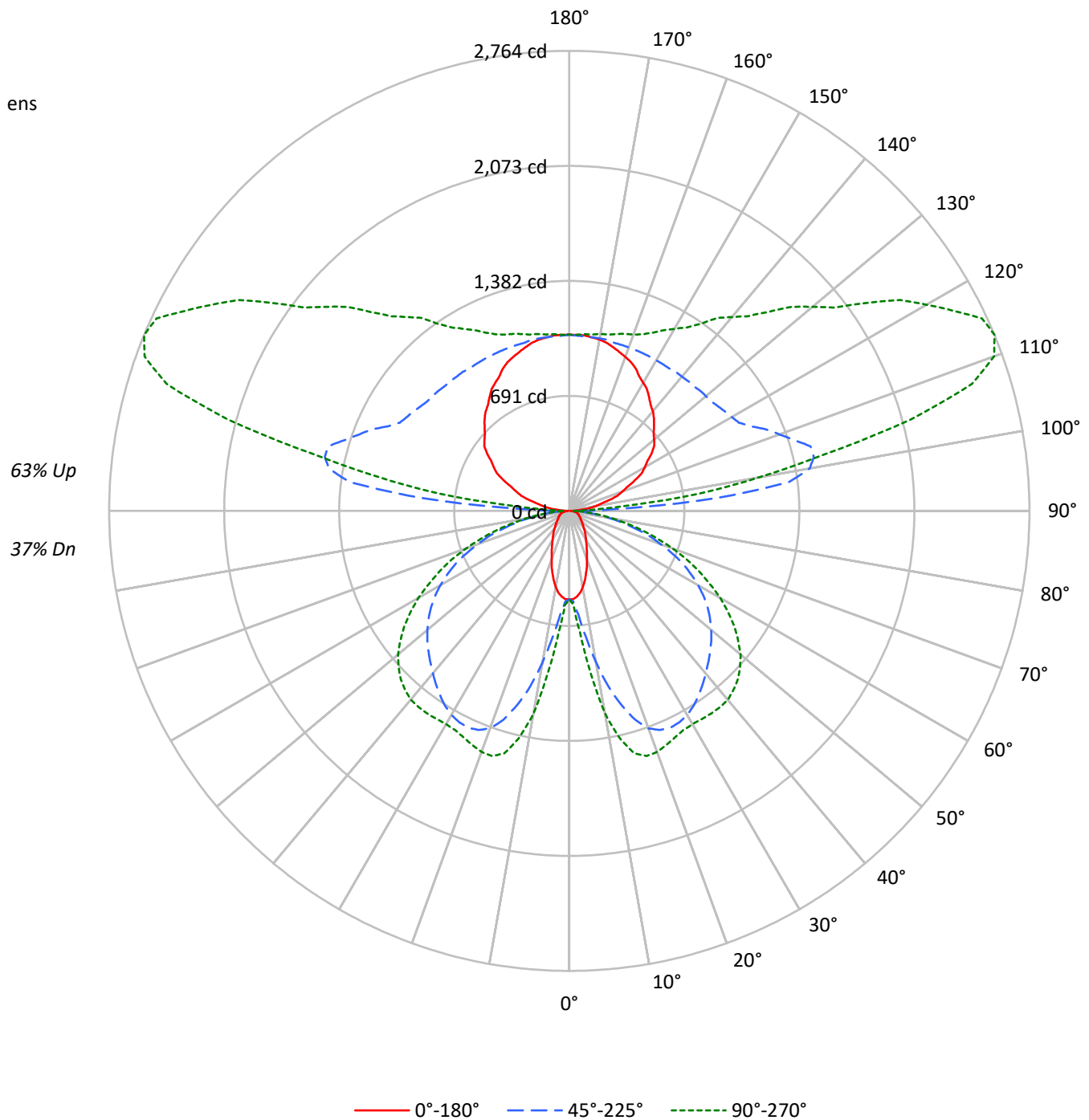
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10977.3 lumens
Efficiency: N/A
Efficacy: 111.6 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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CATALOG NUMBER: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-8-2700K

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	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°	2465	2465	2465
5°	2408	2849	3313
10°	2184	4153	5493
15°	1856	5426	6633
20°	1511	6288	6760
25°	1261	6580	6622
30°	1063	6621	6610
35°	940	6511	6781
40°	819	6368	6957
45°	742	6264	6985
50°	681	6170	6869
55°	652	6032	6565
60°	668	5766	6084
65°	694	5364	5423
70°	740	4678	4581
75°	819	3814	3575
80°	896	2646	2409
85°	796	1403	1234

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6985 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	0.6
10°-20°	304.6	2.8
20°-30°	532.8	4.9
30°-40°	685.8	6.2
40°-50°	766.1	7.0
50°-60°	733.7	6.7
60°-70°	581.4	5.3
70°-80°	341.9	3.1
80°-90°	99.0	0.9
90°-100°	516.1	4.7
100°-110°	1356.8	12.4
110°-120°	1406.8	12.8
120°-130°	1128.4	10.3
130°-140°	885.4	8.1
140°-150°	679.6	6.2
150°-160°	489.4	4.5
160°-170°	299.5	2.7
170°-180°	101.2	0.9
0°-30°	906.1	8.3
0°-40°	1591.9	14.5
0°-60°	3091.7	28.2
0°-90°	4114.1	37.5
90°-120°	3279.7	29.9
90°-150°	5973.1	54.4
90°-180°	6863.0	62.5
0°-180°	10977.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	518	555	625	707	733	48
15°	388	716	1206	1462	1508	108
25°	248	811	1437	1500	1502	114
35°	167	776	1353	1430	1486	105
45°	114	618	1196	1370	1432	89
55°	82	393	1015	1179	1211	75
65°	65	208	753	847	859	64
75°	48	128	413	454	456	50
85°	17	39	102	113	114	18
90°	7	20	54	27	27	7
95°	68	267	889	458	312	76
105°	244	370	1500	2277	2124	259
115°	434	527	1202	2397	2736	429
125°	604	677	1093	1847	2178	536
135°	720	792	1059	1491	1690	557
145°	835	888	1045	1272	1371	523
155°	944	970	1045	1148	1181	434
165°	1018	1032	1045	1086	1100	287
175°	1059	1059	1052	1066	1066	100
180°	1059	1059	1059	1059	1059	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	531.3	531.3	531.3	531.3	531.3	531.3	531.3	531.3	531.3	531.3	531.3
2.5°	531.3	531.3	534.7	536.4	539.8	541.5	544.9	548.4	558.6	560.3	563.7
5°	517.6	524.4	546.6	555.2	579.1	611.6	625.2	647.4	693.6	707.2	715.8
7.5°	497.1	512.5	567.1	580.8	640.6	726.0	761.9	809.7	883.2	919.0	948.1
10°	464.6	497.1	594.5	626.9	724.3	854.1	920.7	987.5	1098.5	1148.0	1166.8
12.5°	428.8	481.7	623.5	667.9	808.0	997.7	1078.0	1151.4	1277.9	1344.5	1354.7
15°	387.8	459.5	650.8	715.8	896.8	1117.3	1206.1	1296.7	1414.5	1462.4	1474.3
17.5°	351.9	442.4	676.5	744.8	965.2	1224.9	1315.4	1390.6	1486.3	1518.7	1527.3
20°	307.5	415.1	693.6	782.4	1037.0	1303.5	1390.6	1448.7	1513.6	1534.1	1537.5
22.5°	275.0	386.1	703.8	796.0	1084.8	1351.3	1424.8	1470.9	1515.3	1522.1	1523.8
25°	247.7	353.6	702.1	811.4	1125.8	1380.4	1436.7	1470.9	1496.5	1499.9	1499.9
27.5°	222.1	317.7	695.3	814.8	1156.6	1387.2	1431.6	1455.5	1467.5	1474.3	1474.3
30°	199.9	283.6	678.2	808.0	1170.2	1380.4	1416.2	1428.2	1440.1	1450.4	1455.5
32.5°	182.8	251.1	652.6	794.3	1171.9	1363.3	1388.9	1395.7	1412.8	1436.7	1445.3
35°	167.4	218.7	623.5	775.5	1161.7	1335.9	1353.0	1359.9	1394.0	1429.9	1441.9
37.5°	152.0	194.7	585.9	743.1	1146.3	1303.5	1315.4	1327.4	1380.4	1423.1	1436.7
40°	136.7	174.2	541.5	707.2	1122.4	1264.2	1274.4	1293.2	1363.3	1412.8	1426.5
42.5°	124.7	157.2	493.7	669.6	1091.7	1219.8	1235.2	1262.5	1342.8	1395.7	1411.1
45°	114.5	140.1	442.4	618.4	1052.4	1173.7	1195.9	1233.4	1318.9	1370.1	1383.8
47.5°	104.2	128.1	389.5	565.4	1009.7	1127.5	1156.6	1199.3	1286.4	1335.9	1347.9
50°	95.7	116.2	336.5	509.1	963.5	1078.0	1112.2	1156.6	1245.4	1291.5	1306.9
52.5°	88.8	105.9	287.0	452.7	910.5	1026.7	1066.0	1112.2	1195.9	1240.3	1250.5
55°	82.0	97.4	244.3	392.9	855.8	972.1	1014.8	1059.2	1141.2	1178.8	1185.6
57.5°	78.6	90.5	208.4	336.5	797.8	910.5	958.3	999.4	1076.3	1105.3	1112.2
60°	73.5	85.4	181.1	288.7	734.6	852.4	893.4	934.4	999.4	1023.3	1028.5
62.5°	68.3	82.0	160.6	242.6	669.6	784.1	825.1	862.7	917.3	934.4	941.2
65°	64.9	78.6	145.2	208.4	603.0	712.3	753.3	785.8	830.2	847.3	850.7
67.5°	61.5	75.2	133.2	179.4	536.4	640.6	671.3	702.1	736.3	753.3	755.0
70°	56.4	71.7	123.0	158.9	468.1	558.6	584.2	616.7	644.0	652.6	657.7
72.5°	53.0	66.6	116.2	143.5	398.0	480.0	503.9	522.7	546.6	555.2	555.2
75°	47.8	59.8	109.3	128.1	326.3	392.9	413.4	432.2	451.0	454.4	449.3
77.5°	42.7	53.0	94.0	107.6	254.5	310.9	328.0	338.2	353.6	357.0	358.7
80°	35.9	46.1	73.5	83.7	184.5	228.9	240.9	249.4	263.1	263.1	266.5
82.5°	27.3	35.9	53.0	59.8	124.7	157.2	167.4	172.5	181.1	181.1	181.1
85°	17.1	22.2	34.2	39.3	75.2	95.7	102.5	104.2	111.0	112.7	112.7
87.5°	8.5	12.0	22.2	23.9	39.3	49.5	49.5	53.0	53.0	51.2	49.5
90°	7.1	12.8	18.4	19.9	31.3	46.4	54.0	48.0	36.0	27.0	27.0
92.5°	28.4	76.8	125.1	137.2	192.8	267.0	304.1	266.5	191.4	135.0	129.7
95°	68.2	156.6	245.0	267.2	474.4	750.7	888.9	793.2	601.8	458.3	442.1
97.5°	118.0	195.9	274.0	293.5	639.1	1099.8	1330.1	1269.7	1148.7	1058.0	1027.1
100°	156.3	227.0	297.8	315.5	698.9	1210.2	1465.9	1470.3	1479.1	1485.8	1448.9
102.5°	189.0	255.0	321.0	337.5	726.4	1244.9	1504.2	1581.2	1735.4	1851.0	1819.4
105°	244.5	300.3	356.2	370.2	746.8	1248.9	1499.9	1672.6	2018.1	2277.3	2260.3
107.5°	301.3	353.4	405.5	418.5	750.6	1193.3	1414.7	1655.6	2137.5	2498.9	2503.0
110°	339.6	386.7	433.7	445.5	744.9	1144.0	1343.6	1613.0	2151.7	2555.8	2573.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	377.3	422.1	467.0	478.2	745.1	1101.1	1279.0	1554.7	2106.0	2519.6	2546.8
115°	434.2	475.5	516.9	527.3	752.0	1051.7	1201.5	1467.1	1998.3	2396.7	2434.4
117.5°	490.3	527.9	565.4	574.8	766.0	1020.8	1148.2	1387.9	1867.3	2226.8	2268.6
120°	523.0	558.3	593.7	602.5	777.3	1010.4	1126.9	1345.9	1783.9	2112.4	2153.0
122.5°	554.9	590.6	626.3	635.2	793.7	1004.9	1110.5	1307.8	1702.2	1998.1	2038.1
125°	604.0	636.5	669.0	677.2	815.7	1000.4	1092.8	1260.4	1595.4	1846.7	1883.6
127.5°	643.8	676.6	709.4	717.6	837.7	997.9	1077.9	1221.7	1509.4	1725.2	1756.3
130°	665.0	700.4	735.7	744.6	853.8	999.4	1072.2	1200.2	1456.4	1648.5	1677.2
132.5°	687.1	722.4	757.8	766.7	866.9	1000.4	1067.2	1181.9	1411.1	1583.0	1608.8
135°	719.8	752.0	784.3	792.3	881.1	999.5	1058.7	1154.7	1346.7	1490.7	1512.9
137.5°	753.2	785.0	817.0	824.9	902.4	1005.7	1057.2	1138.4	1300.8	1422.5	1440.7
140°	780.8	810.2	839.6	847.0	915.4	1006.7	1052.3	1122.4	1262.7	1367.8	1384.8
142.5°	802.2	829.4	856.5	863.3	926.3	1010.3	1052.3	1113.9	1237.0	1329.5	1344.1
145°	834.9	858.6	882.3	888.2	940.6	1010.3	1045.2	1095.6	1196.3	1271.9	1282.9
147.5°	867.5	890.6	913.7	919.5	961.4	1017.3	1045.2	1084.8	1164.1	1223.5	1232.7
150°	888.9	909.7	930.6	935.8	972.3	1020.9	1045.2	1078.7	1145.6	1195.9	1203.3
152.5°	910.9	926.7	942.5	946.5	979.3	1023.2	1045.2	1073.8	1131.0	1173.8	1179.5
155°	943.6	955.3	967.0	969.9	995.0	1028.5	1045.2	1067.9	1113.4	1147.5	1151.2
157.5°	967.7	979.1	990.5	993.4	1010.6	1033.7	1045.2	1062.9	1098.2	1124.8	1127.4
160°	984.1	993.0	1001.8	1004.0	1017.8	1036.1	1045.2	1060.4	1090.7	1113.4	1115.0
162.5°	1000.4	1007.1	1013.8	1015.4	1025.3	1038.5	1045.2	1058.0	1083.5	1102.8	1104.2
165°	1018.2	1024.2	1030.2	1031.7	1036.2	1042.2	1045.2	1054.3	1072.7	1086.5	1088.0
167.5°	1034.5	1037.3	1040.2	1040.9	1044.7	1049.7	1052.3	1058.3	1070.3	1079.3	1079.9
170°	1045.2	1048.0	1050.9	1051.6	1051.9	1052.1	1052.3	1058.3	1070.3	1079.3	1079.3
172.5°	1050.9	1051.5	1052.1	1052.3	1052.3	1052.3	1052.3	1057.1	1066.5	1073.6	1073.1
175°	1058.7	1058.7	1058.7	1058.7	1056.6	1053.7	1052.3	1055.3	1061.3	1065.8	1065.8
177.5°	1058.7	1058.7	1058.7	1058.7	1057.1	1054.8	1053.7	1056.1	1060.8	1064.4	1063.8
180°	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	531.3	531.3
2.5°	567.1	563.7
5°	729.4	732.8
7.5°	982.3	980.6
10°	1221.5	1236.9
12.5°	1395.7	1399.1
15°	1501.6	1508.5
17.5°	1542.6	1544.3
20°	1544.3	1540.9
22.5°	1525.6	1522.1
25°	1503.4	1501.6
27.5°	1482.9	1484.6
30°	1474.3	1479.4
32.5°	1474.3	1482.9
35°	1477.7	1486.3
37.5°	1476.0	1486.3
40°	1469.2	1481.1
42.5°	1450.4	1458.9
45°	1421.4	1431.6
47.5°	1383.8	1390.6
50°	1335.9	1342.8
52.5°	1276.2	1277.9
55°	1204.4	1211.2
57.5°	1127.5	1129.2
60°	1042.1	1047.2
62.5°	951.5	951.5
65°	855.8	859.3
67.5°	756.8	765.3
70°	656.0	657.7
72.5°	556.9	556.9
75°	454.4	456.1
77.5°	357.0	357.0
80°	264.8	266.5
82.5°	182.8	186.2
85°	114.5	114.5
87.5°	53.0	47.8
90°	27.0	27.0
92.5°	108.2	86.7
95°	377.0	311.9
97.5°	903.2	779.5
100°	1301.4	1153.9
102.5°	1693.1	1566.7
105°	2192.4	2124.5
107.5°	2519.5	2535.9
110°	2644.2	2714.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2655.3	2764.0
115°	2584.9	2735.6
117.5°	2435.6	2602.7
120°	2315.4	2477.7
122.5°	2198.2	2358.2
125°	2031.0	2178.5
127.5°	1880.7	2005.2
130°	1792.1	1907.1
132.5°	1711.8	1814.7
135°	1601.7	1690.4
137.5°	1513.3	1585.9
140°	1452.6	1520.5
142.5°	1402.5	1460.9
145°	1327.1	1371.3
147.5°	1269.3	1306.0
150°	1232.9	1262.7
152.5°	1201.8	1224.2
155°	1166.1	1180.9
157.5°	1137.8	1148.2
160°	1121.0	1126.9
162.5°	1109.9	1115.6
165°	1094.0	1099.9
167.5°	1082.4	1085.0
170°	1079.3	1079.3
172.5°	1070.9	1068.7
175°	1065.8	1065.8
177.5°	1061.3	1058.7
180°	1058.7	1058.7



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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	2.87	3.66	3.92	4.72	6.15	16.05	16.84	17.10	17.90	19.33
	3H	3.57	4.28	4.63	5.35	6.80	17.88	18.59	18.95	19.66	21.11
	4H	3.87	4.54	4.94	5.61	7.07	18.53	19.20	19.60	20.27	21.73
	6H	4.11	4.73	5.19	5.80	7.28	18.95	19.57	20.03	20.64	22.12
	8H	4.18	4.77	5.26	5.86	7.32	19.07	19.66	20.16	20.75	22.22
	12H	4.19	4.75	5.28	5.84	7.33	19.14	19.70	20.23	20.78	22.27
4H	2H	10.08	10.75	11.16	11.82	13.28	16.32	16.99	17.39	18.06	19.52
	3H	11.64	12.20	12.72	13.30	14.77	18.35	18.91	19.44	20.01	21.49
	4H	11.73	12.24	12.82	13.33	14.83	19.12	19.63	20.21	20.72	22.22
	6H	11.74	12.18	12.84	13.29	14.78	19.65	20.09	20.75	21.21	22.69
	8H	11.71	12.12	12.81	13.23	14.73	19.81	20.23	20.91	21.33	22.83
	12H	11.66	12.04	12.78	13.15	14.66	19.90	20.28	21.02	21.39	22.90
8H	4H	13.17	13.58	14.27	14.68	16.19	19.17	19.58	20.27	20.69	22.19
	6H	13.41	13.75	14.53	14.89	16.40	19.80	20.14	20.92	21.28	22.79
	8H	13.42	13.72	14.55	14.85	16.37	20.02	20.32	21.15	21.44	22.96
	12H	13.39	13.65	14.52	14.77	16.33	20.16	20.42	21.29	21.54	23.10
12H	4H	13.31	13.68	14.43	14.80	16.31	19.12	19.50	20.24	20.61	22.12
	6H	13.66	13.96	14.79	15.09	16.61	19.78	20.08	20.91	21.21	22.73
	8H	13.73	13.99	14.86	15.12	16.67	20.01	20.27	21.14	21.39	22.95