

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: P938461

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938461
REPORT IS A COMBINATION OF REPORTS P933639 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

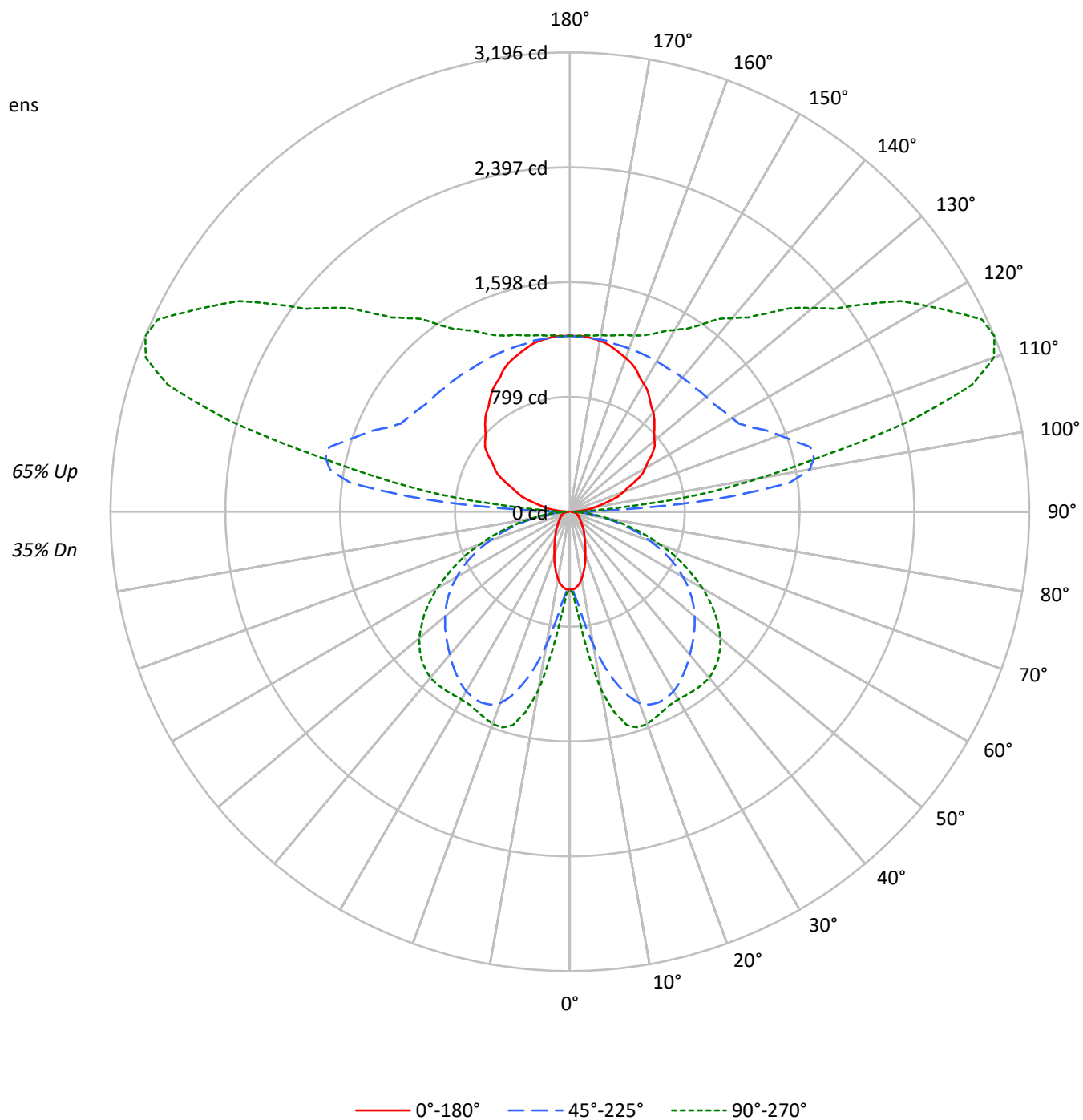
Lumens per Lamp: N/A
Luminaire Lumens: 12129.4 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 108.6
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3349	3349	3349
5°	3270	3869	4501
10°	2965	5639	7462
15°	2519	7366	9010
20°	2050	8534	9184
25°	1710	8928	8997
30°	1441	8982	8979
35°	1273	8831	9212
40°	1109	8634	9452
45°	1003	8490	9489
50°	920	8359	9332
55°	880	8169	8918
60°	899	7807	8265
65°	934	7258	7367
70°	993	6325	6224
75°	1096	5152	4857
80°	1188	3569	3274
85°	1037	1890	1675

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 9489 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	0.6
10°-20°	310.3	2.6
20°-30°	542.8	4.5
30°-40°	698.8	5.8
40°-50°	780.5	6.4
50°-60°	747.6	6.2
60°-70°	592.5	4.9
70°-80°	348.4	2.9
80°-90°	101.5	0.8
90°-100°	596.8	4.9
100°-110°	1569.0	12.9
110°-120°	1626.9	13.4
120°-130°	1305.0	10.8
130°-140°	1024.0	8.4
140°-150°	785.9	6.5
150°-160°	566.0	4.7
160°-170°	346.3	2.9
170°-180°	117.0	1.0
0°-30°	923.2	7.6
0°-40°	1622.0	13.4
0°-60°	3150.1	26.0
0°-90°	4192.4	34.6
90°-120°	3792.8	31.3
90°-150°	6907.6	56.9
90°-180°	7937.0	65.4
0°-180°	12129.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	527	566	637	721	747	49
15°	395	729	1229	1490	1537	110
25°	252	827	1464	1528	1530	116
35°	171	790	1379	1457	1514	107
45°	117	630	1218	1396	1459	90
55°	84	400	1034	1201	1234	76
65°	66	212	768	863	876	66
75°	49	130	421	463	465	51
85°	17	40	104	115	117	18
90°	8	23	62	31	31	8
95°	79	309	1028	530	361	88
105°	283	428	1735	2634	2457	300
115°	502	610	1390	2772	3164	496
125°	698	783	1264	2136	2519	620
135°	832	916	1224	1724	1955	644
145°	966	1027	1209	1471	1586	605
155°	1091	1122	1209	1327	1366	501
165°	1178	1193	1209	1256	1272	332
175°	1224	1224	1217	1232	1232	116
180°	1224	1224	1224	1224	1224	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3	541.3
2.5°	541.3	541.3	544.8	546.6	550.0	551.7	555.3	558.8	569.1	570.9	574.4
5°	527.4	534.4	557.0	565.7	590.0	623.2	637.0	659.7	706.7	720.6	729.3
7.5°	506.5	522.1	577.9	591.8	652.8	739.8	776.3	825.1	899.9	936.4	966.0
10°	473.4	506.5	605.8	638.8	738.0	870.3	938.2	1006.1	1119.2	1169.7	1188.9
12.5°	436.9	490.9	635.4	680.6	823.3	1016.5	1098.3	1173.1	1302.0	1369.9	1380.3
15°	395.1	468.2	663.2	729.3	913.8	1138.4	1228.9	1321.1	1441.2	1489.9	1502.2
17.5°	358.6	450.8	689.3	758.9	983.4	1248.1	1340.3	1416.9	1514.4	1547.4	1556.1
20°	313.3	423.0	706.7	797.2	1056.6	1328.1	1416.9	1476.1	1542.2	1563.1	1566.5
22.5°	280.3	393.4	717.1	811.1	1105.3	1376.8	1451.7	1498.6	1544.0	1550.9	1552.7
25°	252.4	360.3	715.4	826.8	1147.1	1406.4	1463.9	1498.6	1524.8	1528.2	1528.2
27.5°	226.3	323.7	708.4	830.3	1178.4	1413.4	1458.6	1483.0	1495.2	1502.2	1502.2
30°	203.7	289.0	691.0	823.3	1192.3	1406.4	1443.0	1455.2	1467.4	1477.7	1483.0
32.5°	186.3	255.8	664.9	809.4	1194.1	1389.0	1415.1	1422.1	1439.4	1463.9	1472.6
35°	170.6	222.8	635.4	790.2	1183.6	1361.2	1378.6	1385.5	1420.3	1456.9	1469.0
37.5°	154.9	198.4	597.1	757.2	1168.0	1328.1	1340.3	1352.5	1406.4	1449.9	1463.9
40°	139.2	177.5	551.7	720.6	1143.5	1288.0	1298.5	1317.6	1389.0	1439.4	1453.4
42.5°	127.1	160.1	503.0	682.4	1112.3	1242.8	1258.4	1286.3	1368.1	1422.1	1437.8
45°	116.6	142.7	450.8	630.1	1072.2	1195.8	1218.5	1256.8	1343.7	1396.0	1409.9
47.5°	106.2	130.5	396.9	576.2	1028.7	1148.8	1178.4	1221.9	1310.7	1361.2	1373.3
50°	97.5	118.4	342.9	518.7	981.7	1098.3	1133.2	1178.4	1268.9	1315.9	1331.6
52.5°	90.6	107.9	292.4	461.3	927.7	1046.1	1086.1	1133.2	1218.5	1263.7	1274.2
55°	83.5	99.2	248.9	400.3	872.1	990.4	1033.9	1079.2	1162.7	1201.0	1208.0
57.5°	80.1	92.2	212.4	342.9	812.9	927.7	976.5	1018.3	1096.6	1126.2	1133.2
60°	74.8	87.0	184.5	294.1	748.5	868.6	910.4	952.1	1018.3	1042.6	1047.8
62.5°	69.6	83.5	163.6	247.2	682.4	798.9	840.7	879.0	934.7	952.1	959.1
65°	66.1	80.1	148.0	212.4	614.5	725.8	767.6	800.7	846.0	863.4	866.8
67.5°	62.6	76.6	135.8	182.8	546.6	652.8	684.0	715.4	750.2	767.6	769.4
70°	57.4	73.1	125.3	161.9	476.9	569.1	595.3	628.3	656.2	664.9	670.1
72.5°	53.9	67.9	118.4	146.2	405.6	489.1	513.5	532.6	557.0	565.7	565.7
75°	48.7	61.0	111.4	130.5	332.4	400.3	421.2	440.4	459.5	463.0	457.8
77.5°	43.5	53.9	95.7	109.7	259.4	316.8	334.2	344.6	360.3	363.8	365.5
80°	36.5	47.0	74.8	85.3	188.0	233.3	245.4	254.1	268.1	268.1	271.6
82.5°	27.8	36.5	53.9	61.0	127.1	160.1	170.6	175.8	184.5	184.5	184.5
85°	17.4	22.7	34.8	40.1	76.6	97.5	104.4	106.2	113.1	114.9	114.9
87.5°	8.7	12.2	22.7	24.3	40.1	50.5	50.5	53.9	53.9	52.3	50.5
90°	8.3	14.8	21.3	23.0	36.2	53.7	62.4	55.5	41.6	31.3	31.3
92.5°	32.8	88.7	144.7	158.6	223.0	308.8	351.7	308.2	221.3	156.2	149.9
95°	78.9	181.1	283.4	309.0	548.7	868.2	1028.0	917.3	696.0	530.0	511.2
97.5°	136.4	226.6	316.8	339.4	739.0	1271.9	1538.3	1468.3	1328.4	1223.6	1187.7
100°	180.8	262.6	344.4	364.8	808.3	1399.6	1695.2	1700.3	1710.6	1718.2	1675.6
102.5°	218.6	294.9	371.3	390.3	840.1	1439.7	1739.6	1828.6	2006.8	2140.5	2104.0
105°	282.6	347.3	411.9	428.1	863.6	1444.3	1734.6	1934.4	2333.9	2633.6	2613.9
107.5°	348.4	408.7	468.9	483.9	867.9	1380.0	1636.0	1914.7	2472.0	2890.0	2894.7
110°	392.8	447.2	501.6	515.2	861.4	1323.0	1553.8	1865.3	2488.4	2955.7	2976.1

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CATALOG NUMBER: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-6-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	436.3	488.2	540.0	553.0	861.7	1273.3	1479.1	1797.9	2435.5	2913.8	2945.2
115°	502.0	549.9	597.8	609.7	869.6	1216.2	1389.5	1696.6	2310.9	2771.6	2815.1
117.5°	566.9	610.4	653.9	664.8	885.9	1180.5	1327.9	1605.1	2159.4	2575.2	2623.5
120°	604.8	645.7	686.7	696.8	898.9	1168.5	1303.2	1556.5	2063.0	2442.9	2489.8
122.5°	641.8	683.1	724.3	734.6	917.8	1162.2	1284.3	1512.4	1968.5	2310.6	2356.9
125°	698.4	736.0	773.7	783.1	943.3	1157.0	1263.8	1457.5	1845.0	2135.6	2178.2
127.5°	744.4	782.4	820.4	829.9	968.8	1153.9	1246.5	1412.8	1745.5	1995.1	2031.1
130°	769.1	810.1	851.0	861.2	987.5	1155.8	1240.0	1388.1	1684.2	1906.4	1939.6
132.5°	794.6	835.5	876.5	886.6	1002.5	1157.0	1234.2	1366.7	1631.9	1830.7	1860.5
135°	832.4	869.6	906.9	916.2	1018.9	1155.8	1224.4	1335.4	1557.4	1723.9	1749.6
137.5°	871.0	907.9	944.8	954.0	1043.6	1163.0	1222.7	1316.6	1504.3	1645.1	1666.0
140°	903.1	937.1	971.0	979.5	1058.6	1164.2	1217.0	1298.0	1460.2	1581.8	1601.4
142.5°	927.7	959.1	990.5	998.4	1071.3	1168.4	1217.0	1288.2	1430.6	1537.4	1554.2
145°	965.5	992.9	1020.3	1027.2	1087.7	1168.4	1208.7	1266.9	1383.5	1470.9	1483.6
147.5°	1003.3	1030.0	1056.6	1063.3	1111.8	1176.4	1208.7	1254.6	1346.2	1414.9	1425.6
150°	1028.0	1052.0	1076.1	1082.2	1124.3	1180.6	1208.7	1247.5	1324.8	1382.9	1391.5
152.5°	1053.4	1071.7	1090.0	1094.5	1132.6	1183.3	1208.7	1241.7	1307.9	1357.4	1363.9
155°	1091.2	1104.7	1118.3	1121.6	1150.7	1189.4	1208.7	1235.0	1287.6	1327.0	1331.3
157.5°	1119.1	1132.3	1145.5	1148.7	1168.8	1195.4	1208.7	1229.2	1270.1	1300.8	1303.8
160°	1138.1	1148.3	1158.5	1161.0	1176.9	1198.1	1208.7	1226.3	1261.3	1287.6	1289.3
162.5°	1157.0	1164.6	1172.3	1174.2	1185.7	1201.1	1208.7	1223.5	1253.1	1275.3	1277.0
165°	1177.5	1184.5	1191.3	1193.1	1198.3	1205.2	1208.7	1219.3	1240.5	1256.4	1258.2
167.5°	1196.4	1199.7	1203.0	1203.8	1208.2	1214.1	1217.0	1223.9	1237.8	1248.2	1248.9
170°	1208.7	1212.0	1215.3	1216.1	1216.4	1216.8	1217.0	1223.9	1237.8	1248.2	1248.2
172.5°	1215.3	1216.0	1216.8	1217.0	1217.0	1217.0	1217.0	1222.4	1233.4	1241.6	1241.0
175°	1224.4	1224.4	1224.4	1224.4	1221.9	1218.6	1217.0	1220.4	1227.3	1232.5	1232.5
177.5°	1224.4	1224.4	1224.4	1224.4	1222.4	1219.9	1218.6	1221.3	1226.8	1230.9	1230.2
180°	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4	1224.4

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	541.3	541.3
2.5°	577.9	574.4
5°	743.2	746.7
7.5°	1000.8	999.2
10°	1244.6	1260.2
12.5°	1422.1	1425.6
15°	1530.0	1536.9
17.5°	1571.8	1573.5
20°	1573.5	1570.1
22.5°	1554.3	1550.9
25°	1531.8	1530.0
27.5°	1510.9	1512.6
30°	1502.2	1507.3
32.5°	1502.2	1510.9
35°	1505.7	1514.4
37.5°	1503.9	1514.4
40°	1496.9	1509.1
42.5°	1477.7	1486.5
45°	1448.2	1458.6
47.5°	1409.9	1416.9
50°	1361.2	1368.1
52.5°	1300.2	1302.0
55°	1227.2	1234.1
57.5°	1148.8	1150.6
60°	1061.8	1067.0
62.5°	969.6	969.6
65°	872.1	875.5
67.5°	771.1	779.8
70°	668.4	670.1
72.5°	567.5	567.5
75°	463.0	464.7
77.5°	363.8	363.8
80°	269.8	271.6
82.5°	186.3	189.7
85°	116.6	116.6
87.5°	53.9	48.7
90°	31.3	31.3
92.5°	125.1	100.2
95°	435.9	360.7
97.5°	1044.6	901.4
100°	1505.1	1334.5
102.5°	1957.9	1811.8
105°	2535.4	2456.9
107.5°	2913.7	2932.6
110°	3057.9	3139.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3070.8	3196.4
115°	2989.3	3163.6
117.5°	2816.7	3009.9
120°	2677.6	2865.3
122.5°	2542.1	2727.2
125°	2348.8	2519.3
127.5°	2174.9	2318.9
130°	2072.5	2205.4
132.5°	1979.5	2098.6
135°	1852.2	1954.8
137.5°	1750.1	1834.1
140°	1679.9	1758.4
142.5°	1621.9	1689.4
145°	1534.7	1585.9
147.5°	1467.9	1510.3
150°	1425.8	1460.2
152.5°	1389.8	1415.8
155°	1348.5	1365.7
157.5°	1315.9	1327.9
160°	1296.3	1303.2
162.5°	1283.5	1290.0
165°	1265.0	1272.0
167.5°	1251.8	1254.7
170°	1248.2	1248.2
172.5°	1238.4	1235.9
175°	1232.5	1232.5
177.5°	1227.2	1224.4
180°	1224.4	1224.4

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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	3.59	4.35	4.67	5.43	6.91	16.76	17.52	17.83	18.60	20.07
	3H	4.29	4.97	5.37	6.06	7.55	18.58	19.27	19.67	20.35	21.84
	4H	4.58	5.23	5.68	6.32	7.82	19.22	19.87	20.31	20.96	22.46
	6H	4.83	5.43	5.93	6.52	8.03	19.64	20.24	20.74	21.33	22.84
	8H	4.89	5.46	6.00	6.57	8.07	19.76	20.33	20.86	21.43	22.94
	12H	4.91	5.45	6.02	6.55	8.08	19.82	20.36	20.93	21.46	22.99
4H	2H	10.79	11.44	11.89	12.52	14.02	17.02	17.67	18.12	18.76	20.25
	3H	12.35	12.89	13.45	14.00	15.51	19.05	19.59	20.16	20.71	22.22
	4H	12.44	12.93	13.55	14.04	15.57	19.81	20.31	20.92	21.41	22.94
	6H	12.44	12.87	13.56	14.00	15.52	20.34	20.77	21.46	21.90	23.42
	8H	12.41	12.82	13.53	13.94	15.47	20.50	20.90	21.61	22.02	23.56
	12H	12.37	12.73	13.50	13.86	15.41	20.58	20.94	21.72	22.08	23.62
8H	4H	13.87	14.27	14.99	15.39	16.93	19.86	20.26	20.98	21.38	22.92
	6H	14.11	14.44	15.25	15.60	17.14	20.48	20.81	21.62	21.98	23.51
	8H	14.12	14.41	15.27	15.55	17.11	20.70	20.99	21.84	22.13	23.69
	12H	14.09	14.34	15.24	15.48	17.07	20.83	21.09	21.99	22.23	23.82
12H	4H	14.01	14.37	15.14	15.50	17.05	19.81	20.17	20.95	21.30	22.85
	6H	14.36	14.65	15.51	15.79	17.35	20.46	20.75	21.61	21.90	23.45
	8H	14.43	14.68	15.58	15.82	17.41	20.69	20.94	21.84	22.08	23.67