

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: P938089

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938089
REPORT IS A COMBINATION OF REPORTS P933607 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

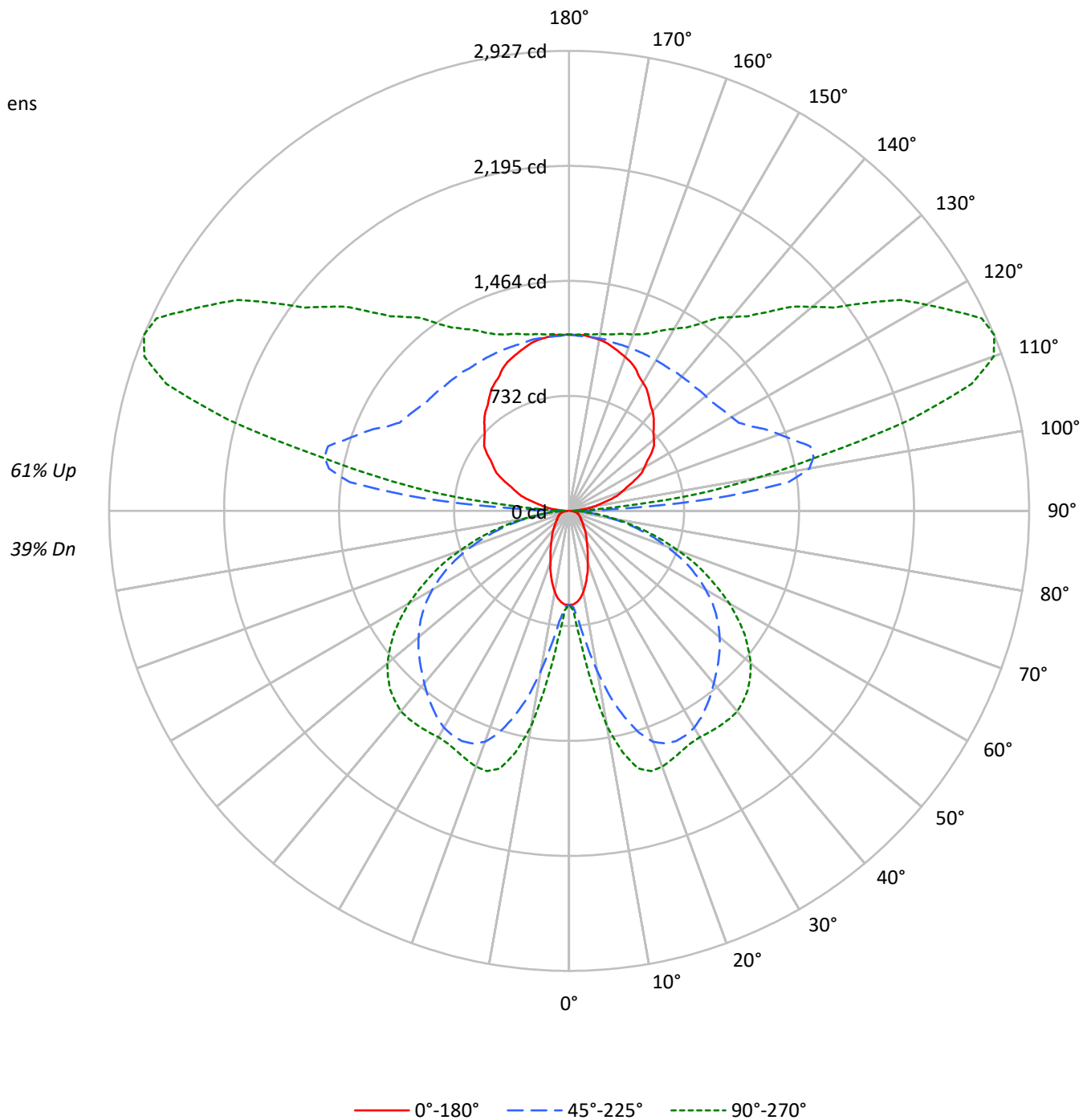
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11893.5 lumens
Efficiency: N/A
Efficacy: 123.1 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): 96.6
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

TEST NUMBER: P938089
CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-3500K

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	0
RCR																		
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3694	3694	3694
5°	3608	4269	4966
10°	3271	6222	8233
15°	2780	8126	9941
20°	2261	9415	10132
25°	1886	9849	9926
30°	1590	9909	9907
35°	1405	9742	10163
40°	1223	9526	10428
45°	1107	9366	10468
50°	1015	9222	10295
55°	971	9013	9839
60°	993	8613	9118
65°	1032	8007	8128
70°	1097	6979	6866
75°	1211	5684	5358
80°	1312	3937	3611
85°	1145	2085	1849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10468 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	0.6
10°-20°	342.4	2.9
20°-30°	598.9	5.0
30°-40°	771.0	6.5
40°-50°	861.1	7.2
50°-60°	824.8	6.9
60°-70°	653.6	5.5
70°-80°	384.4	3.2
80°-90°	111.1	0.9
90°-100°	546.6	4.6
100°-110°	1437.0	12.1
110°-120°	1490.0	12.5
120°-130°	1195.2	10.0
130°-140°	937.8	7.9
140°-150°	719.8	6.1
150°-160°	518.4	4.4
160°-170°	317.2	2.7
170°-180°	107.2	0.9
0°-30°	1018.6	8.6
0°-40°	1789.5	15.0
0°-60°	3475.4	29.2
0°-90°	4624.5	38.9
90°-120°	3473.6	29.2
90°-150°	6326.3	53.2
90°-180°	7269.0	61.1
0°-180°	11893.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	582	624	703	795	824	54
15°	436	805	1356	1644	1696	121
25°	278	912	1615	1686	1688	128
35°	188	872	1521	1607	1671	118
45°	129	695	1344	1540	1609	100
55°	92	442	1141	1325	1362	84
65°	73	234	847	952	966	72
75°	54	144	465	511	513	56
85°	19	44	115	127	129	20
90°	8	21	57	29	29	8
95°	72	283	942	485	330	80
105°	259	392	1589	2412	2250	274
115°	460	558	1273	2538	2897	454
125°	640	717	1158	1956	2307	568
135°	762	839	1121	1579	1790	590
145°	884	941	1107	1347	1452	554
155°	999	1027	1107	1215	1251	459
165°	1078	1093	1107	1151	1165	304
175°	1121	1121	1114	1129	1129	106
180°	1121	1121	1121	1121	1121	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2
2.5°	597.2	597.2	601.1	603.0	606.8	608.7	612.6	616.5	627.9	629.8	633.7
5°	581.9	589.5	614.5	624.1	651.0	687.5	702.8	727.8	779.7	795.1	804.7
7.5°	558.8	576.1	637.6	652.9	720.2	816.2	856.5	910.3	992.8	1033.1	1065.8
10°	522.3	558.8	668.3	704.8	814.3	960.2	1035.1	1110.0	1234.8	1290.5	1311.6
12.5°	482.0	541.6	701.0	750.9	908.3	1121.5	1211.7	1294.3	1436.4	1511.3	1522.9
15°	436.0	516.6	731.7	804.7	1008.1	1255.9	1355.8	1457.6	1590.0	1643.8	1657.3
17.5°	395.6	497.4	760.5	837.3	1085.0	1376.9	1478.7	1563.2	1670.7	1707.2	1716.8
20°	345.6	466.7	779.7	879.6	1165.7	1465.2	1563.2	1628.5	1701.5	1724.5	1728.3
22.5°	309.2	434.0	791.2	894.9	1219.4	1519.0	1601.6	1653.4	1703.4	1711.1	1713.0
25°	278.5	397.5	789.3	912.2	1265.5	1551.7	1615.0	1653.4	1682.3	1686.1	1686.1
27.5°	249.6	357.2	781.6	916.0	1300.1	1559.3	1609.2	1636.2	1649.6	1657.3	1657.3
30°	224.7	318.8	762.4	908.3	1315.4	1551.7	1592.0	1605.4	1618.9	1630.3	1636.2
32.5°	205.5	282.3	733.5	892.9	1317.4	1532.5	1561.3	1568.9	1588.1	1615.0	1624.6
35°	188.2	245.8	701.0	871.8	1305.8	1501.8	1520.9	1528.6	1567.0	1607.4	1620.7
37.5°	170.9	218.9	658.7	835.4	1288.6	1465.2	1478.7	1492.2	1551.7	1599.6	1615.0
40°	153.6	195.8	608.7	795.1	1261.6	1421.0	1432.6	1453.7	1532.5	1588.1	1603.5
42.5°	140.2	176.6	554.9	752.8	1227.1	1371.1	1388.4	1419.1	1509.4	1568.9	1586.3
45°	128.7	157.5	497.4	695.2	1183.0	1319.3	1344.3	1386.5	1482.5	1540.1	1555.5
47.5°	117.2	144.0	437.9	635.7	1134.9	1267.5	1300.1	1348.1	1446.0	1501.8	1515.1
50°	107.6	130.6	378.3	572.3	1083.1	1211.7	1250.2	1300.1	1399.9	1451.8	1469.1
52.5°	99.9	119.1	322.6	508.9	1023.6	1154.2	1198.3	1250.2	1344.3	1394.2	1405.7
55°	92.2	109.5	274.6	441.7	962.1	1092.6	1140.7	1190.6	1282.8	1325.0	1332.8
57.5°	88.4	101.7	234.3	378.3	896.8	1023.6	1077.3	1123.5	1209.8	1242.5	1250.2
60°	82.6	96.0	203.6	324.5	825.8	958.2	1004.4	1050.4	1123.5	1150.3	1156.0
62.5°	76.8	92.2	180.5	272.7	752.8	881.4	927.5	969.8	1031.2	1050.4	1058.1
65°	73.0	88.4	163.3	234.3	677.9	800.8	846.9	883.3	933.3	952.5	956.3
67.5°	69.1	84.5	149.8	201.6	603.0	720.2	754.7	789.3	827.7	846.9	848.8
70°	63.4	80.6	138.3	178.6	526.2	627.9	656.8	693.2	723.9	733.5	739.3
72.5°	59.5	74.9	130.6	161.3	447.5	539.6	566.5	587.6	614.5	624.1	624.1
75°	53.8	67.2	122.9	144.0	366.8	441.7	464.7	485.9	507.0	510.9	505.0
77.5°	48.0	59.5	105.6	121.0	286.1	349.5	368.7	380.2	397.5	401.4	403.3
80°	40.3	51.8	82.6	94.1	207.4	257.4	270.7	280.3	295.7	295.7	299.6
82.5°	30.7	40.3	59.5	67.2	140.2	176.6	188.2	194.0	203.6	203.6	203.6
85°	19.2	25.0	38.4	44.2	84.5	107.6	115.2	117.2	124.8	126.7	126.7
87.5°	9.6	13.5	25.0	26.8	44.2	55.7	55.7	59.5	59.5	57.7	55.7
90°	7.6	13.6	19.6	21.0	33.0	49.1	57.2	50.8	38.1	28.6	28.6
92.5°	30.1	81.3	132.5	145.3	204.2	282.8	322.1	282.3	202.7	143.0	137.3
95°	72.3	165.9	259.5	282.9	502.4	795.2	941.5	840.1	637.4	485.4	468.1
97.5°	124.9	207.5	290.1	310.8	676.7	1164.8	1408.8	1344.8	1216.7	1120.6	1087.8
100°	165.6	240.5	315.4	334.1	740.2	1281.8	1552.5	1557.2	1566.6	1573.6	1534.5
102.5°	200.2	270.1	340.0	357.5	769.4	1318.5	1593.1	1674.7	1838.0	1960.4	1927.0
105°	258.9	318.1	377.2	392.1	790.9	1322.8	1588.7	1771.6	2137.5	2411.9	2393.9
107.5°	319.1	374.2	429.5	443.2	795.0	1263.9	1498.4	1753.6	2264.0	2646.7	2651.1
110°	359.7	409.5	459.3	471.8	788.9	1211.6	1423.1	1708.3	2279.0	2707.0	2725.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	399.6	447.1	494.6	506.5	789.2	1166.1	1354.6	1646.5	2230.5	2668.5	2697.3
115°	459.8	503.6	547.5	558.4	796.5	1113.9	1272.6	1553.9	2116.5	2538.4	2578.3
117.5°	519.3	559.1	598.8	608.8	811.2	1081.1	1216.1	1470.0	1977.7	2358.5	2402.7
120°	553.9	591.4	628.8	638.2	823.3	1070.1	1193.5	1425.5	1889.4	2237.3	2280.3
122.5°	587.8	625.6	663.4	672.8	840.6	1064.3	1176.3	1385.2	1802.9	2116.2	2158.5
125°	639.6	674.1	708.5	717.2	864.0	1059.6	1157.5	1334.9	1689.7	1955.9	1995.0
127.5°	681.8	716.6	751.4	760.1	887.3	1056.9	1141.7	1294.0	1598.8	1827.2	1860.2
130°	704.4	741.9	779.3	788.7	904.3	1058.4	1135.6	1271.2	1542.5	1745.9	1776.4
132.5°	727.7	765.2	802.6	812.0	918.1	1059.6	1130.3	1251.8	1494.6	1676.7	1703.9
135°	762.3	796.4	830.5	839.1	933.1	1058.6	1121.3	1223.0	1426.4	1578.9	1602.3
137.5°	797.7	831.5	865.3	873.7	955.7	1065.1	1119.8	1205.7	1377.6	1506.6	1525.8
140°	827.0	858.1	889.3	897.0	969.5	1066.2	1114.5	1188.8	1337.3	1448.7	1466.7
142.5°	849.6	878.4	907.2	914.3	981.1	1070.1	1114.5	1179.8	1310.2	1408.1	1423.6
145°	884.2	909.3	934.4	940.7	996.1	1070.1	1107.0	1160.4	1267.1	1347.1	1358.8
147.5°	918.9	943.3	967.7	973.8	1018.2	1077.4	1107.0	1148.9	1233.0	1295.9	1305.6
150°	941.5	963.6	985.6	991.1	1029.8	1081.2	1107.0	1142.5	1213.4	1266.6	1274.4
152.5°	964.7	981.5	998.3	1002.4	1037.3	1083.7	1107.0	1137.2	1197.8	1243.2	1249.1
155°	999.4	1011.8	1024.1	1027.2	1053.8	1089.3	1107.0	1131.1	1179.3	1215.4	1219.4
157.5°	1025.0	1037.0	1049.0	1052.0	1070.4	1094.8	1107.0	1125.7	1163.2	1191.3	1194.0
160°	1042.3	1051.7	1061.1	1063.4	1077.9	1097.3	1107.0	1123.1	1155.1	1179.3	1180.8
162.5°	1059.6	1066.6	1073.7	1075.4	1086.0	1100.0	1107.0	1120.6	1147.6	1167.9	1169.5
165°	1078.4	1084.8	1091.2	1092.7	1097.5	1103.8	1107.0	1116.7	1136.2	1150.7	1152.2
167.5°	1095.7	1098.7	1101.8	1102.5	1106.5	1111.8	1114.5	1120.9	1133.6	1143.1	1143.8
170°	1107.0	1110.0	1113.0	1113.8	1114.1	1114.4	1114.5	1120.9	1133.6	1143.1	1143.1
172.5°	1113.0	1113.7	1114.4	1114.5	1114.5	1114.5	1114.5	1119.6	1129.6	1137.1	1136.5
175°	1121.3	1121.3	1121.3	1121.3	1119.1	1116.1	1114.5	1117.7	1124.1	1128.9	1128.9
177.5°	1121.3	1121.3	1121.3	1121.3	1119.6	1117.2	1116.0	1118.5	1123.6	1127.3	1126.7
180°	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	597.2	597.2
2.5°	637.6	633.7
5°	820.0	823.8
7.5°	1104.2	1102.3
10°	1373.1	1390.3
12.5°	1568.9	1572.8
15°	1688.0	1695.7
17.5°	1734.1	1736.0
20°	1736.0	1732.2
22.5°	1714.8	1711.1
25°	1689.9	1688.0
27.5°	1666.9	1668.8
30°	1657.3	1663.0
32.5°	1657.3	1666.9
35°	1661.2	1670.7
37.5°	1659.2	1670.7
40°	1651.5	1664.9
42.5°	1630.3	1640.0
45°	1597.8	1609.2
47.5°	1555.5	1563.2
50°	1501.8	1509.4
52.5°	1434.5	1436.4
55°	1353.9	1361.5
57.5°	1267.5	1269.4
60°	1171.4	1177.1
62.5°	1069.7	1069.7
65°	962.1	965.9
67.5°	850.7	860.3
70°	737.4	739.3
72.5°	626.1	626.1
75°	510.9	512.7
77.5°	401.4	401.4
80°	297.7	299.6
82.5°	205.5	209.3
85°	128.7	128.7
87.5°	59.5	53.8
90°	28.6	28.6
92.5°	114.5	91.8
95°	399.2	330.3
97.5°	956.7	825.6
100°	1378.4	1222.2
102.5°	1793.1	1659.4
105°	2322.0	2250.1
107.5°	2668.4	2685.9
110°	2800.6	2875.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2812.3	2927.4
115°	2737.8	2897.3
117.5°	2579.7	2756.6
120°	2452.2	2624.1
122.5°	2328.1	2497.7
125°	2151.2	2307.4
127.5°	1992.0	2123.8
130°	1898.2	2019.9
132.5°	1813.0	1922.0
135°	1696.3	1790.3
137.5°	1602.7	1679.7
140°	1538.6	1610.5
142.5°	1485.4	1547.3
145°	1405.6	1452.4
147.5°	1344.5	1383.2
150°	1305.9	1337.3
152.5°	1272.9	1296.6
155°	1235.1	1250.8
157.5°	1205.0	1216.1
160°	1187.2	1193.5
162.5°	1175.5	1181.5
165°	1158.6	1164.9
167.5°	1146.4	1149.1
170°	1143.1	1143.1
172.5°	1134.2	1131.9
175°	1128.9	1128.9
177.5°	1124.0	1121.3
180°	1121.3	1121.3



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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	4.43	5.23	5.47	6.28	7.70	17.60	18.39	18.64	19.44	20.86
	3H	5.13	5.85	6.18	6.91	8.34	19.42	20.14	20.47	21.20	22.64
	4H	5.43	6.11	6.49	7.17	8.61	20.06	20.74	21.13	21.80	23.25
	6H	5.67	6.30	6.74	7.36	8.82	20.49	21.11	21.56	22.18	23.64
	8H	5.74	6.34	6.82	7.42	8.87	20.60	21.20	21.68	22.28	23.73
	12H	5.75	6.32	6.84	7.40	8.87	20.67	21.23	21.75	22.31	23.79
4H	2H	11.63	12.31	12.70	13.37	14.81	17.86	18.54	18.93	19.60	21.05
	3H	13.19	13.76	14.27	14.85	16.31	19.90	20.47	20.97	21.55	23.01
	4H	13.28	13.81	14.37	14.89	16.36	20.66	21.18	21.74	22.26	23.74
	6H	13.29	13.74	14.38	14.84	16.31	21.19	21.64	22.28	22.74	24.21
	8H	13.27	13.69	14.36	14.78	16.27	21.35	21.77	22.44	22.86	24.35
	12H	13.22	13.60	14.33	14.71	16.20	21.43	21.81	22.54	22.92	24.42
8H	4H	14.72	15.14	15.81	16.23	17.72	20.71	21.13	21.80	22.23	23.72
	6H	14.96	15.31	16.07	16.44	17.93	21.33	21.68	22.45	22.82	24.30
	8H	14.98	15.28	16.10	16.40	17.90	21.55	21.86	22.67	22.97	24.48
	12H	14.94	15.21	16.07	16.32	17.87	21.69	21.96	22.81	23.07	24.61
12H	4H	14.86	15.24	15.97	16.35	17.84	20.66	21.04	21.77	22.15	23.64
	6H	15.22	15.52	16.34	16.64	18.14	21.32	21.62	22.44	22.74	24.25
	8H	15.28	15.55	16.41	16.66	18.21	21.54	21.81	22.67	22.92	24.47