

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: P938090

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938090
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-6-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

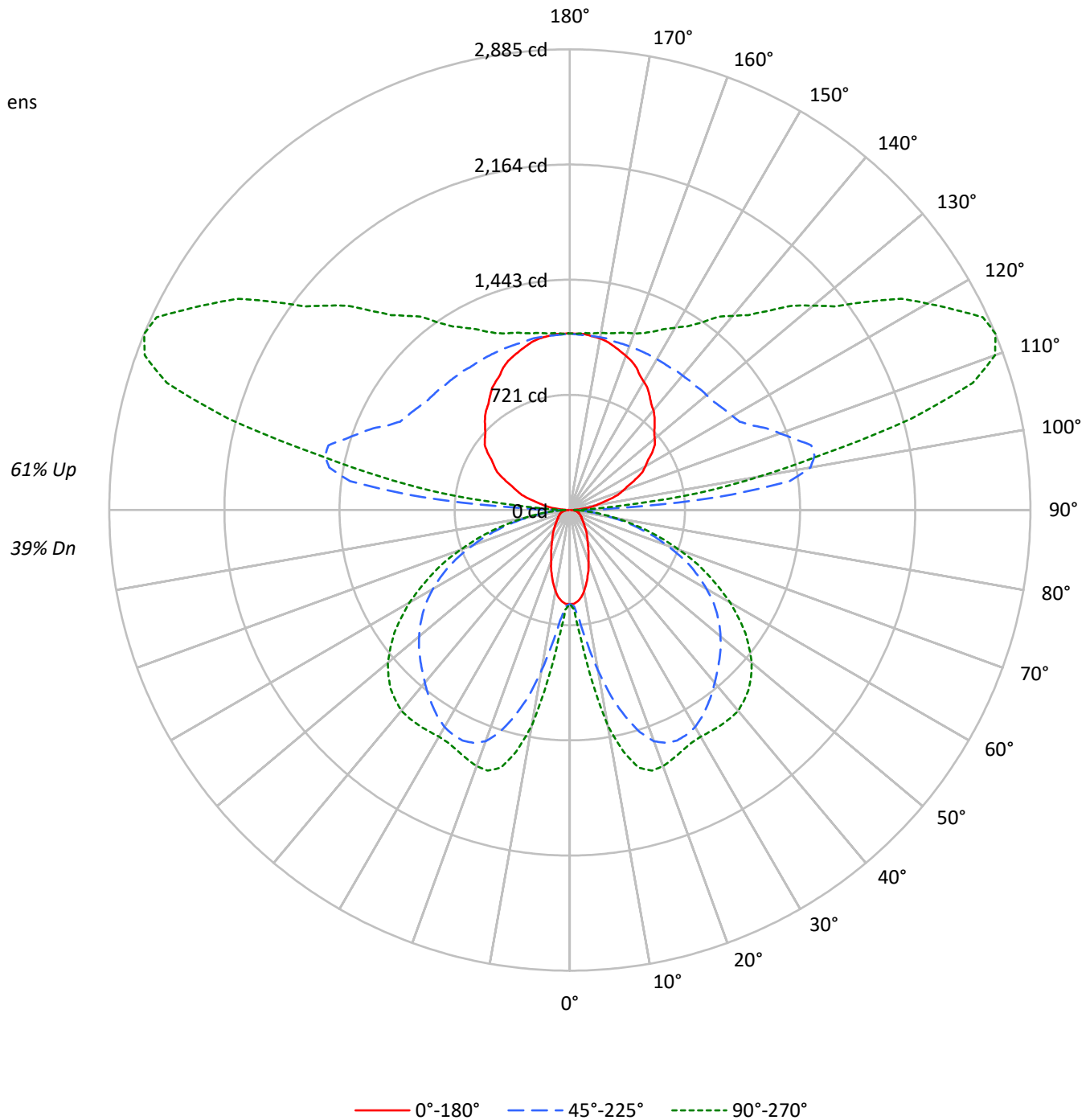
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11721.6 lumens
Efficiency: N/A
Efficacy: 121.3 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

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CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-4000K

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°	3641	3641	3641
5°	3556	4207	4894
10°	3224	6131	8114
15°	2740	8009	9798
20°	2229	9279	9986
25°	1859	9707	9782
30°	1567	9766	9764
35°	1385	9602	10016
40°	1206	9388	10277
45°	1091	9231	10317
50°	1000	9089	10147
55°	957	8882	9697
60°	979	8489	8986
65°	1016	7892	8010
70°	1081	6878	6768
75°	1193	5602	5281
80°	1292	3880	3559
85°	1127	2054	1821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10317 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	0.6
10°-20°	337.5	2.9
20°-30°	590.2	5.0
30°-40°	759.8	6.5
40°-50°	848.7	7.2
50°-60°	812.9	6.9
60°-70°	644.2	5.5
70°-80°	378.8	3.2
80°-90°	109.4	0.9
90°-100°	538.7	4.6
100°-110°	1416.2	12.1
110°-120°	1468.5	12.5
120°-130°	1177.9	10.0
130°-140°	924.2	7.9
140°-150°	709.4	6.1
150°-160°	510.9	4.4
160°-170°	312.6	2.7
170°-180°	105.6	0.9
0°-30°	1003.8	8.6
0°-40°	1763.7	15.0
0°-60°	3425.2	29.2
0°-90°	4557.7	38.9
90°-120°	3423.4	29.2
90°-150°	6234.9	53.2
90°-180°	7164.0	61.1
0°-180°	11721.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	574	615	693	784	812	53
15°	430	793	1336	1620	1671	120
25°	274	899	1592	1662	1664	126
35°	186	859	1499	1584	1647	116
45°	127	685	1325	1518	1586	98
55°	91	435	1124	1306	1342	83
65°	72	231	835	939	952	71
75°	53	142	458	504	505	55
85°	19	44	114	125	127	20
90°	7	21	56	28	28	7
95°	71	279	928	478	326	79
105°	255	386	1566	2377	2218	271
115°	453	550	1254	2502	2855	448
125°	630	707	1141	1928	2274	560
135°	751	827	1105	1556	1764	581
145°	871	927	1091	1328	1431	546
155°	985	1012	1091	1198	1233	453
165°	1063	1077	1091	1134	1148	300
175°	1105	1105	1098	1113	1113	105
180°	1105	1105	1105	1105	1105	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6	588.6
2.5°	588.6	588.6	592.4	594.3	598.0	599.9	603.8	607.6	618.8	620.8	624.6
5°	573.5	581.0	605.7	615.1	641.6	677.6	692.7	717.3	768.4	783.6	793.0
7.5°	550.7	567.7	628.4	643.5	709.8	804.4	844.1	897.1	978.5	1018.2	1050.4
10°	514.7	550.7	658.7	694.6	802.5	946.3	1020.1	1094.0	1217.0	1271.9	1292.7
12.5°	475.0	533.7	690.8	740.0	895.2	1105.3	1194.2	1275.6	1415.7	1489.5	1500.9
15°	429.7	509.1	721.1	793.0	993.6	1237.8	1336.2	1436.5	1567.1	1620.1	1633.3
17.5°	389.9	490.2	749.5	825.2	1069.3	1357.1	1457.3	1540.6	1646.6	1682.5	1692.0
20°	340.6	459.9	768.4	866.9	1148.9	1444.1	1540.6	1605.0	1676.9	1699.6	1703.3
22.5°	304.7	427.7	779.8	881.9	1201.8	1497.1	1578.4	1629.5	1678.8	1686.3	1688.2
25°	274.5	391.7	777.8	899.0	1247.2	1529.2	1591.7	1629.5	1658.0	1661.7	1661.7
27.5°	246.0	352.0	770.3	902.8	1281.3	1536.8	1586.0	1612.5	1625.8	1633.3	1633.3
30°	221.5	314.2	751.4	895.2	1296.4	1529.2	1569.0	1582.2	1595.5	1606.8	1612.5
32.5°	202.6	278.2	722.9	880.0	1298.3	1510.3	1538.7	1546.2	1565.1	1591.7	1601.2
35°	185.5	242.3	690.8	859.2	1287.0	1480.1	1499.0	1506.5	1544.3	1584.2	1597.3
37.5°	168.5	215.7	649.2	823.3	1270.0	1444.1	1457.3	1470.6	1529.2	1576.5	1591.7
40°	151.4	193.0	599.9	783.6	1243.4	1400.5	1411.9	1432.7	1510.3	1565.1	1580.3
42.5°	138.2	174.1	546.9	741.9	1209.4	1351.3	1368.3	1398.6	1487.6	1546.2	1563.3
45°	126.8	155.2	490.2	685.1	1165.9	1300.2	1324.9	1366.5	1461.1	1517.9	1533.1
47.5°	115.5	141.9	431.6	626.5	1118.5	1249.1	1281.3	1328.6	1425.1	1480.1	1493.2
50°	106.0	128.7	372.8	564.0	1067.4	1194.2	1232.1	1281.3	1379.7	1430.8	1447.9
52.5°	98.5	117.4	317.9	501.6	1008.8	1137.5	1181.0	1232.1	1324.9	1374.1	1385.4
55°	90.8	107.9	270.6	435.3	948.2	1076.9	1124.2	1173.4	1264.2	1305.9	1313.5
57.5°	87.1	100.3	230.9	372.8	883.9	1008.8	1061.8	1107.2	1192.3	1224.5	1232.1
60°	81.4	94.6	200.6	319.8	813.9	944.4	989.9	1035.2	1107.2	1133.7	1139.3
62.5°	75.7	90.8	177.9	268.7	741.9	868.7	914.1	955.8	1016.3	1035.2	1042.9
65°	71.9	87.1	160.9	230.9	668.1	789.2	834.7	870.6	919.9	938.8	942.5
67.5°	68.1	83.3	147.6	198.7	594.3	709.8	743.8	777.8	815.8	834.7	836.6
70°	62.5	79.5	136.3	176.0	518.6	618.8	647.3	683.2	713.5	722.9	728.7
72.5°	58.6	73.8	128.7	159.0	441.0	531.8	558.3	579.1	605.7	615.1	615.1
75°	53.0	66.3	121.1	141.9	361.5	435.3	458.0	478.8	499.7	503.5	497.7
77.5°	47.3	58.6	104.1	119.3	282.0	344.5	363.4	374.7	391.7	395.6	397.5
80°	39.7	51.1	81.4	92.7	204.4	253.6	266.8	276.3	291.5	291.5	295.3
82.5°	30.3	39.7	58.6	66.3	138.2	174.1	185.5	191.2	200.6	200.6	200.6
85°	18.9	24.6	37.8	43.5	83.3	106.0	113.5	115.5	123.0	124.9	124.9
87.5°	9.5	13.3	24.6	26.5	43.5	54.9	54.9	58.6	58.6	56.8	54.9
90°	7.4	13.4	19.3	20.7	32.6	48.4	56.3	50.0	37.5	28.2	28.2
92.5°	29.7	80.1	130.5	143.2	201.2	278.7	317.4	278.2	199.8	141.0	135.3
95°	71.2	163.5	255.7	278.9	495.2	783.7	927.9	828.0	628.2	478.4	461.4
97.5°	123.1	204.5	285.9	306.3	667.0	1148.0	1388.5	1325.3	1199.1	1104.4	1072.1
100°	163.2	237.0	310.9	329.3	729.5	1263.3	1530.1	1534.7	1543.9	1550.8	1512.3
102.5°	197.3	266.2	335.1	352.3	758.3	1299.5	1570.1	1650.5	1811.4	1932.1	1899.1
105°	255.2	313.5	371.8	386.4	779.5	1303.7	1565.7	1746.0	2106.6	2377.1	2359.3
107.5°	314.5	368.8	423.3	436.8	783.5	1245.6	1476.7	1728.3	2231.3	2608.5	2612.8
110°	354.5	403.6	452.7	465.0	777.5	1194.1	1402.5	1683.7	2246.1	2667.9	2686.3



TEST NUMBER: P938090

CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	393.8	440.6	487.4	499.2	777.8	1149.2	1335.0	1622.7	2198.3	2630.0	2658.3
115°	453.1	496.3	539.6	550.4	785.0	1097.8	1254.2	1531.4	2085.9	2501.7	2541.1
117.5°	511.8	551.0	590.2	600.0	799.5	1065.5	1198.5	1448.7	1949.2	2324.5	2368.0
120°	545.9	582.8	619.7	629.0	811.4	1054.6	1176.3	1404.9	1862.1	2205.0	2247.4
122.5°	579.3	616.5	653.8	663.1	828.5	1049.0	1159.3	1365.2	1776.9	2085.6	2127.4
125°	630.4	664.4	698.3	706.8	851.5	1044.3	1140.7	1315.6	1665.3	1927.7	1966.2
127.5°	671.9	706.2	740.5	749.1	874.5	1041.6	1125.2	1275.3	1575.7	1800.8	1833.3
130°	694.2	731.1	768.0	777.3	891.2	1043.1	1119.2	1252.9	1520.2	1720.7	1750.7
132.5°	717.2	754.2	791.0	800.3	904.9	1044.3	1114.0	1233.7	1473.0	1652.4	1679.3
135°	751.3	784.9	818.5	826.9	919.7	1043.3	1105.1	1205.3	1405.8	1556.1	1579.2
137.5°	786.2	819.5	852.8	861.1	941.9	1049.7	1103.6	1188.3	1357.7	1484.8	1503.7
140°	815.1	845.7	876.4	884.0	955.5	1050.8	1098.4	1171.6	1318.0	1427.7	1445.5
142.5°	837.3	865.7	894.1	901.1	966.9	1054.6	1098.4	1162.7	1291.3	1387.7	1403.0
145°	871.4	896.2	920.9	927.1	981.7	1054.6	1091.0	1143.6	1248.8	1327.6	1339.2
147.5°	905.6	929.7	953.8	959.8	1003.5	1061.9	1091.0	1132.3	1215.1	1277.2	1286.8
150°	927.9	949.7	971.3	976.8	1014.9	1065.6	1091.0	1125.9	1195.9	1248.3	1256.0
152.5°	950.8	967.3	983.8	987.9	1022.3	1068.1	1091.0	1120.8	1180.5	1225.3	1231.1
155°	985.0	997.2	1009.3	1012.4	1038.6	1073.5	1091.0	1114.8	1162.2	1197.9	1201.8
157.5°	1010.2	1022.0	1033.9	1036.8	1054.9	1079.0	1091.0	1109.4	1146.4	1174.1	1176.8
160°	1027.2	1036.5	1045.7	1048.0	1062.3	1081.4	1091.0	1106.8	1138.5	1162.2	1163.8
162.5°	1044.3	1051.2	1058.1	1059.9	1070.3	1084.1	1091.0	1104.4	1131.0	1151.1	1152.6
165°	1062.8	1069.1	1075.4	1077.0	1081.6	1087.8	1091.0	1100.5	1119.7	1134.1	1135.6
167.5°	1079.9	1082.9	1085.8	1086.6	1090.5	1095.8	1098.4	1104.7	1117.3	1126.6	1127.3
170°	1091.0	1094.0	1096.9	1097.7	1098.0	1098.2	1098.4	1104.7	1117.3	1126.6	1126.6
172.5°	1096.9	1097.6	1098.2	1098.4	1098.4	1098.4	1098.4	1103.4	1113.2	1120.7	1120.1
175°	1105.1	1105.1	1105.1	1105.1	1102.9	1100.0	1098.4	1101.6	1107.9	1112.6	1112.6
177.5°	1105.1	1105.1	1105.1	1105.1	1103.4	1101.0	1099.9	1102.4	1107.3	1111.0	1110.4
180°	1105.1	1105.1	1105.1	1105.1	1105.1	1105.1	1105.1	1105.1	1105.1	1105.1	1105.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	588.6	588.6
2.5°	628.4	624.6
5°	808.1	811.9
7.5°	1088.2	1086.4
10°	1353.2	1370.2
12.5°	1546.2	1550.1
15°	1663.6	1671.2
17.5°	1709.1	1710.9
20°	1710.9	1707.2
22.5°	1690.1	1686.3
25°	1665.5	1663.6
27.5°	1642.8	1644.7
30°	1633.3	1639.0
32.5°	1633.3	1642.8
35°	1637.2	1646.6
37.5°	1635.2	1646.6
40°	1627.6	1640.9
42.5°	1606.8	1616.3
45°	1574.7	1586.0
47.5°	1533.1	1540.6
50°	1480.1	1487.6
52.5°	1413.8	1415.7
55°	1334.3	1341.9
57.5°	1249.1	1251.0
60°	1154.5	1160.1
62.5°	1054.2	1054.2
65°	948.2	951.9
67.5°	838.4	847.8
70°	726.8	728.7
72.5°	617.0	617.0
75°	503.5	505.3
77.5°	395.6	395.6
80°	293.4	295.3
82.5°	202.6	206.3
85°	126.8	126.8
87.5°	58.6	53.0
90°	28.2	28.2
92.5°	112.9	90.4
95°	393.5	325.6
97.5°	942.9	813.7
100°	1358.5	1204.5
102.5°	1767.2	1635.4
105°	2288.5	2217.6
107.5°	2629.9	2647.1
110°	2760.1	2834.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2771.7	2885.2
115°	2698.3	2855.4
117.5°	2542.4	2716.8
120°	2416.8	2586.2
122.5°	2294.5	2461.6
125°	2120.1	2274.0
127.5°	1963.2	2093.1
130°	1870.7	1990.7
132.5°	1786.8	1894.2
135°	1671.8	1764.5
137.5°	1579.6	1655.4
140°	1516.3	1587.2
142.5°	1463.9	1524.9
145°	1385.3	1431.4
147.5°	1325.1	1363.3
150°	1287.1	1318.0
152.5°	1254.5	1277.9
155°	1217.2	1232.7
157.5°	1187.6	1198.5
160°	1170.1	1176.3
162.5°	1158.5	1164.4
165°	1141.9	1148.1
167.5°	1129.9	1132.5
170°	1126.6	1126.6
172.5°	1117.8	1115.5
175°	1112.6	1112.6
177.5°	1107.8	1105.1
180°	1105.1	1105.1



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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	4.38	5.18	5.42	6.23	7.65	17.54	18.34	18.58	19.39	20.81
	3H	5.08	5.80	6.13	6.86	8.29	19.37	20.09	20.42	21.15	22.59
	4H	5.38	6.06	6.44	7.12	8.56	20.01	20.69	21.07	21.75	23.20
	6H	5.62	6.25	6.69	7.31	8.77	20.44	21.06	21.51	22.13	23.58
	8H	5.69	6.29	6.77	7.37	8.82	20.55	21.15	21.63	22.23	23.68
	12H	5.70	6.27	6.79	7.35	8.82	20.62	21.18	21.70	22.26	23.73
4H	2H	11.58	12.26	12.65	13.32	14.76	17.81	18.49	18.88	19.55	21.00
	3H	13.14	13.71	14.22	14.80	16.26	19.85	20.41	20.92	21.50	22.96
	4H	13.23	13.76	14.32	14.83	16.31	20.61	21.13	21.69	22.21	23.69
	6H	13.24	13.69	14.33	14.79	16.26	21.14	21.59	22.23	22.69	24.16
	8H	13.22	13.64	14.31	14.73	16.22	21.30	21.72	22.39	22.81	24.30
	12H	13.17	13.55	14.28	14.66	16.15	21.38	21.76	22.49	22.87	24.37
8H	4H	14.67	15.09	15.76	16.18	17.67	20.66	21.08	21.75	22.18	23.67
	6H	14.91	15.26	16.02	16.39	17.88	21.28	21.63	22.40	22.77	24.25
	8H	14.93	15.23	16.05	16.35	17.85	21.50	21.81	22.62	22.92	24.43
	12H	14.89	15.16	16.02	16.27	17.82	21.64	21.91	22.76	23.02	24.56
12H	4H	14.81	15.19	15.92	16.30	17.79	20.61	20.99	21.72	22.10	23.59
	6H	15.16	15.47	16.29	16.59	18.09	21.27	21.57	22.39	22.69	24.20
	8H	15.23	15.50	16.36	16.61	18.16	21.49	21.76	22.62	22.87	24.42