

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: P938438

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938438
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-92765-1D-UNV-STD-W-6-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

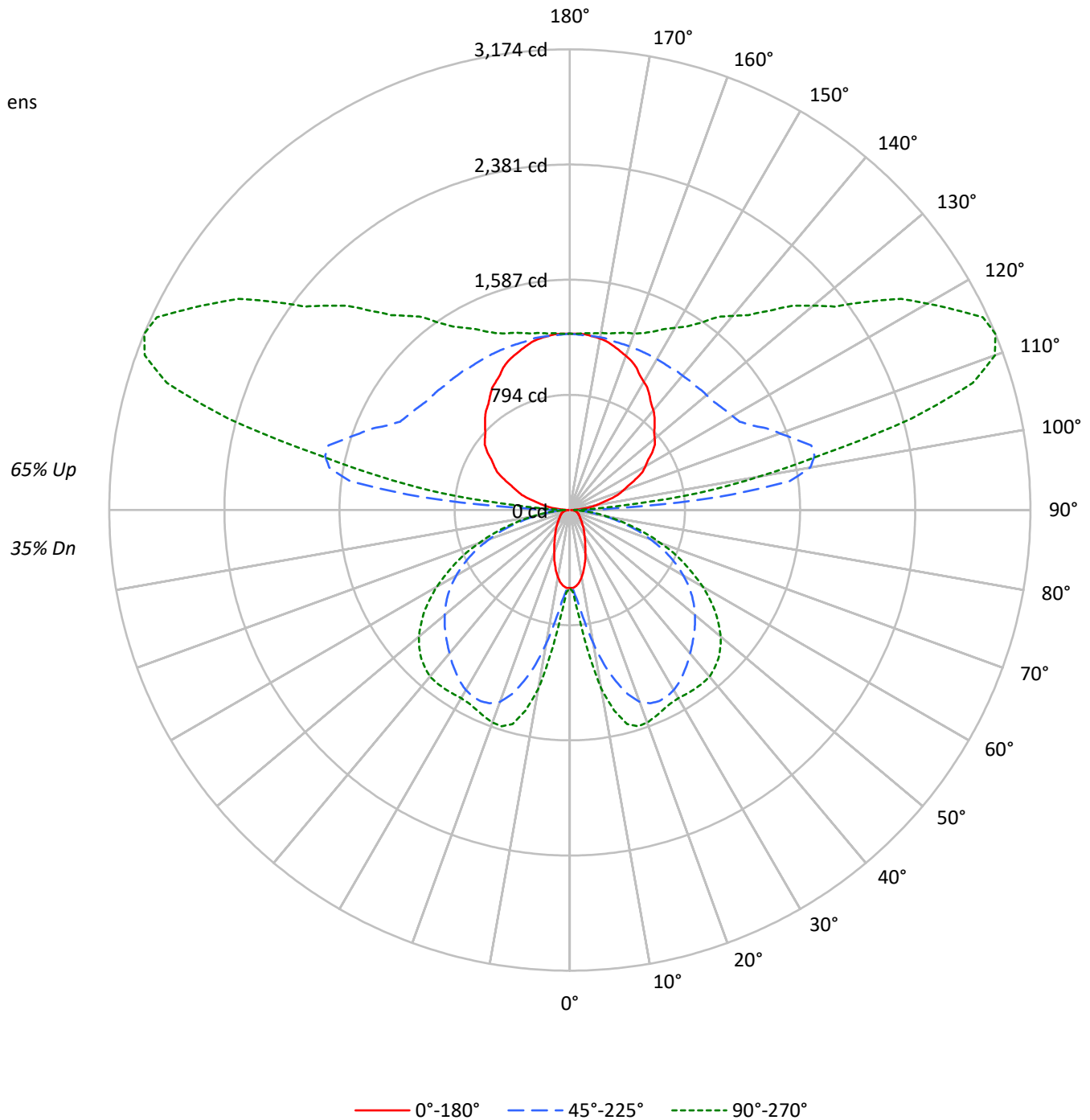
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12042.8 lumens
Efficiency: N/A
Efficacy: 110.9 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 (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: P938438
CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-6-3000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3324	3324	3324
5°	3247	3842	4469
10°	2944	5599	7409
15°	2501	7313	8946
20°	2036	8473	9118
25°	1697	8864	8933
30°	1431	8918	8915
35°	1264	8767	9147
40°	1101	8572	9384
45°	996	8429	9421
50°	913	8300	9266
55°	873	8111	8855
60°	893	7751	8205
65°	929	7206	7314
70°	986	6281	6180
75°	1089	5116	4822
80°	1181	3543	3250
85°	1031	1877	1663

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9421 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	0.6
10°-20°	308.1	2.6
20°-30°	539.0	4.5
30°-40°	693.8	5.8
40°-50°	775.0	6.4
50°-60°	742.2	6.2
60°-70°	588.2	4.9
70°-80°	345.9	2.9
80°-90°	100.7	0.8
90°-100°	592.6	4.9
100°-110°	1557.8	12.9
110°-120°	1615.3	13.4
120°-130°	1295.7	10.8
130°-140°	1016.6	8.4
140°-150°	780.3	6.5
150°-160°	561.9	4.7
160°-170°	343.8	2.9
170°-180°	116.2	1.0
0°-30°	916.6	7.6
0°-40°	1610.4	13.4
0°-60°	3127.6	26.0
0°-90°	4162.5	34.6
90°-120°	3765.7	31.3
90°-150°	6858.3	56.9
90°-180°	7880.0	65.4
0°-180°	12042.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	524	562	632	716	741	48
15°	392	724	1220	1479	1526	109
25°	251	821	1453	1517	1519	115
35°	169	785	1369	1446	1504	106
45°	116	626	1210	1386	1448	90
55°	83	398	1027	1192	1225	76
65°	66	211	762	857	869	65
75°	48	130	418	460	461	51
85°	17	40	104	114	116	18
90°	8	23	62	31	31	8
95°	78	307	1021	526	358	87
105°	281	425	1722	2615	2439	298
115°	498	605	1380	2752	3141	492
125°	693	778	1255	2120	2501	616
135°	826	910	1216	1712	1941	639
145°	959	1020	1200	1460	1574	601
155°	1083	1114	1200	1318	1356	498
165°	1169	1185	1200	1247	1263	330
175°	1216	1216	1208	1224	1224	115
180°	1216	1216	1216	1216	1216	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4	537.4
2.5°	537.4	537.4	540.9	542.7	546.1	547.8	551.3	554.8	565.1	566.8	570.3
5°	523.7	530.5	553.0	561.7	585.8	618.7	632.5	655.0	701.6	715.5	724.1
7.5°	502.9	518.4	573.8	587.6	648.1	734.5	770.8	819.2	893.5	929.8	959.2
10°	470.0	502.9	601.4	634.2	732.8	864.1	931.5	998.9	1111.2	1161.4	1180.4
12.5°	433.7	487.4	630.8	675.7	817.4	1009.3	1090.5	1164.8	1292.7	1360.1	1370.5
15°	392.3	464.9	658.5	724.1	907.3	1130.2	1220.1	1311.7	1430.9	1479.3	1491.4
17.5°	356.1	447.6	684.4	753.5	976.4	1239.2	1330.7	1406.8	1503.6	1536.3	1545.0
20°	311.1	420.0	701.6	791.5	1049.1	1318.6	1406.8	1465.5	1531.2	1552.0	1555.4
22.5°	278.3	390.6	712.0	805.3	1097.4	1367.0	1441.3	1488.0	1532.9	1539.8	1541.6
25°	250.6	357.7	710.3	820.9	1138.9	1396.4	1453.4	1488.0	1513.9	1517.3	1517.3
27.5°	224.6	321.4	703.4	824.3	1170.0	1403.3	1448.2	1472.4	1484.6	1491.4	1491.4
30°	202.2	286.9	686.1	817.4	1183.8	1396.4	1432.7	1444.8	1456.9	1467.2	1472.4
32.5°	185.0	254.0	660.1	803.6	1185.5	1379.1	1405.0	1411.9	1429.2	1453.4	1462.1
35°	169.3	221.2	630.8	784.6	1175.2	1351.5	1368.7	1375.6	1410.2	1446.5	1458.6
37.5°	153.8	197.0	592.8	751.8	1159.6	1318.6	1330.7	1342.8	1396.4	1439.6	1453.4
40°	138.2	176.2	547.8	715.5	1135.4	1278.8	1289.2	1308.2	1379.1	1429.2	1443.0
42.5°	126.2	159.0	499.4	677.5	1104.3	1233.9	1249.5	1277.1	1358.4	1411.9	1427.5
45°	115.8	141.7	447.6	625.6	1064.6	1187.3	1209.8	1247.8	1334.1	1386.0	1399.9
47.5°	105.4	129.6	394.1	572.1	1021.3	1140.6	1170.0	1213.2	1301.3	1351.5	1363.5
50°	96.8	117.6	340.4	515.0	974.7	1090.5	1125.1	1170.0	1259.8	1306.5	1322.1
52.5°	89.9	107.2	290.3	458.0	921.1	1038.7	1078.4	1125.1	1209.8	1254.7	1265.1
55°	82.9	98.5	247.1	397.5	865.8	983.3	1026.6	1071.5	1154.4	1192.4	1199.4
57.5°	79.5	91.6	210.9	340.4	807.1	921.1	969.5	1011.0	1088.7	1118.1	1125.1
60°	74.3	86.4	183.2	292.0	743.1	862.4	903.9	945.3	1011.0	1035.2	1040.3
62.5°	69.2	82.9	162.5	245.4	677.5	793.2	834.7	872.7	928.0	945.3	952.3
65°	65.7	79.5	146.9	210.9	610.1	720.6	762.2	794.9	839.9	857.2	860.6
67.5°	62.2	76.0	134.8	181.5	542.7	648.1	679.1	710.3	744.9	762.2	763.9
70°	57.0	72.6	124.4	160.7	473.5	565.1	591.1	623.9	651.5	660.1	665.4
72.5°	53.5	67.4	117.6	145.2	402.7	485.6	509.8	528.8	553.0	561.7	561.7
75°	48.4	60.5	110.6	129.6	330.1	397.5	418.2	437.2	456.2	459.7	454.5
77.5°	43.2	53.5	95.1	108.9	257.5	314.5	331.8	342.2	357.7	361.2	362.9
80°	36.3	46.7	74.3	84.7	186.6	231.6	243.6	252.3	266.1	266.1	269.6
82.5°	27.6	36.3	53.5	60.5	126.2	159.0	169.3	174.6	183.2	183.2	183.2
85°	17.3	22.5	34.5	39.8	76.0	96.8	103.7	105.4	112.3	114.1	114.1
87.5°	8.6	12.1	22.5	24.2	39.8	50.1	50.1	53.5	53.5	51.9	50.1
90°	8.2	14.7	21.2	22.8	35.9	53.3	62.0	55.1	41.3	31.0	31.0
92.5°	32.6	88.1	143.6	157.5	221.4	306.6	349.2	306.0	219.8	155.0	148.9
95°	78.3	179.8	281.4	306.8	544.8	862.0	1020.6	910.8	691.0	526.2	507.5
97.5°	135.4	225.0	314.5	337.0	733.7	1262.8	1527.3	1457.9	1319.0	1214.8	1179.3
100°	179.5	260.7	341.9	362.2	802.5	1389.6	1683.1	1688.2	1698.4	1706.0	1663.7
102.5°	217.0	292.8	368.6	387.5	834.1	1429.4	1727.2	1815.6	1992.5	2125.2	2089.0
105°	280.6	344.8	409.0	425.0	857.5	1434.0	1722.3	1920.6	2317.3	2614.8	2595.3
107.5°	345.9	405.8	465.6	480.5	861.7	1370.1	1624.3	1901.0	2454.3	2869.3	2874.0
110°	390.0	444.0	498.0	511.5	855.3	1313.5	1542.7	1852.0	2470.6	2934.6	2954.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	433.2	484.7	536.1	549.0	855.6	1264.2	1468.5	1785.1	2418.2	2893.0	2924.2
115°	498.5	546.0	593.5	605.4	863.4	1207.5	1379.6	1684.5	2294.4	2751.8	2795.0
117.5°	562.9	606.1	649.2	660.0	879.5	1172.1	1318.4	1593.6	2144.0	2556.8	2604.8
120°	600.5	641.1	681.8	691.9	892.5	1160.2	1293.9	1545.4	2048.3	2425.5	2472.0
122.5°	637.2	678.2	719.2	729.4	911.3	1153.9	1275.2	1501.6	1954.5	2294.1	2340.1
125°	693.4	730.8	768.2	777.5	936.6	1148.7	1254.8	1447.1	1831.8	2120.4	2162.6
127.5°	739.1	776.8	814.6	824.0	961.9	1145.7	1237.6	1402.8	1733.1	1980.8	2016.6
130°	763.6	804.3	844.9	855.0	980.4	1147.6	1231.1	1378.2	1672.2	1892.7	1925.7
132.5°	788.9	829.6	870.2	880.3	995.3	1148.7	1225.4	1357.0	1620.2	1817.7	1847.2
135°	826.4	863.4	900.5	909.7	1011.6	1147.6	1215.6	1325.8	1546.3	1711.6	1737.1
137.5°	864.8	901.4	938.0	947.2	1036.2	1154.7	1214.0	1307.2	1493.5	1633.3	1654.2
140°	896.6	930.4	964.0	972.5	1051.1	1155.9	1208.3	1288.8	1449.8	1570.5	1590.0
142.5°	921.0	952.3	983.5	991.2	1063.6	1160.1	1208.3	1279.0	1420.4	1526.4	1543.2
145°	958.6	985.8	1013.0	1019.8	1079.9	1160.1	1200.1	1257.9	1373.6	1460.4	1473.0
147.5°	996.1	1022.6	1049.1	1055.7	1103.8	1168.0	1200.1	1245.6	1336.6	1404.8	1415.4
150°	1020.6	1044.5	1068.4	1074.4	1116.3	1172.2	1200.1	1238.5	1315.4	1373.0	1381.6
152.5°	1045.9	1064.1	1082.2	1086.7	1124.5	1174.9	1200.1	1232.9	1298.5	1347.7	1354.2
155°	1083.4	1096.8	1110.3	1113.6	1142.5	1180.9	1200.1	1226.2	1278.4	1317.6	1321.8
157.5°	1111.1	1124.2	1137.3	1140.5	1160.4	1186.8	1200.1	1220.4	1261.0	1291.5	1294.4
160°	1130.0	1140.1	1150.2	1152.7	1168.5	1189.5	1200.1	1217.5	1252.3	1278.4	1280.1
162.5°	1148.7	1156.3	1163.9	1165.8	1177.2	1192.5	1200.1	1214.7	1244.1	1266.2	1267.9
165°	1169.1	1176.0	1182.8	1184.6	1189.7	1196.6	1200.1	1210.6	1231.7	1247.4	1249.2
167.5°	1187.9	1191.1	1194.4	1195.2	1199.6	1205.4	1208.3	1215.2	1229.0	1239.2	1239.9
170°	1200.1	1203.3	1206.6	1207.4	1207.7	1208.1	1208.3	1215.2	1229.0	1239.2	1239.2
172.5°	1206.6	1207.3	1208.1	1208.3	1208.3	1208.3	1208.3	1213.7	1224.6	1232.7	1232.1
175°	1215.6	1215.6	1215.6	1215.6	1213.2	1209.9	1208.3	1211.7	1218.6	1223.7	1223.7
177.5°	1215.6	1215.6	1215.6	1215.6	1213.7	1211.2	1209.9	1212.6	1218.1	1222.2	1221.5
180°	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6	1215.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	537.4	537.4
2.5°	573.8	570.3
5°	737.9	741.4
7.5°	993.7	992.0
10°	1235.7	1251.2
12.5°	1411.9	1415.4
15°	1519.1	1526.0
17.5°	1560.6	1562.2
20°	1562.2	1558.8
22.5°	1543.2	1539.8
25°	1520.8	1519.1
27.5°	1500.1	1501.8
30°	1491.4	1496.6
32.5°	1491.4	1500.1
35°	1494.9	1503.6
37.5°	1493.2	1503.6
40°	1486.2	1498.3
42.5°	1467.2	1475.9
45°	1437.9	1448.2
47.5°	1399.9	1406.8
50°	1351.5	1358.4
52.5°	1291.0	1292.7
55°	1218.4	1225.3
57.5°	1140.6	1142.4
60°	1054.2	1059.3
62.5°	962.6	962.6
65°	865.8	869.2
67.5°	765.6	774.2
70°	663.6	665.4
72.5°	563.4	563.4
75°	459.7	461.4
77.5°	361.2	361.2
80°	267.9	269.6
82.5°	185.0	188.4
85°	115.8	115.8
87.5°	53.5	48.4
90°	31.0	31.0
92.5°	124.2	99.5
95°	432.8	358.1
97.5°	1037.1	895.0
100°	1494.3	1325.0
102.5°	1943.9	1798.9
105°	2517.3	2439.3
107.5°	2892.9	2911.7
110°	3036.1	3117.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3048.9	3173.6
115°	2968.0	3141.0
117.5°	2796.6	2988.5
120°	2658.5	2844.8
122.5°	2523.9	2707.8
125°	2332.0	2501.3
127.5°	2159.4	2302.3
130°	2057.7	2189.7
132.5°	1965.4	2083.6
135°	1839.0	1940.9
137.5°	1737.6	1821.0
140°	1667.9	1745.9
142.5°	1610.3	1677.4
145°	1523.8	1574.5
147.5°	1457.4	1499.5
150°	1415.7	1449.8
152.5°	1379.9	1405.7
155°	1338.8	1355.9
157.5°	1306.5	1318.4
160°	1287.0	1293.9
162.5°	1274.3	1280.8
165°	1256.0	1262.9
167.5°	1242.9	1245.8
170°	1239.2	1239.2
172.5°	1229.6	1227.0
175°	1223.7	1223.7
177.5°	1218.5	1215.6
180°	1215.6	1215.6



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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	3.57	4.33	4.64	5.41	6.88	16.73	17.49	17.80	18.57	20.05
	3H	4.27	4.95	5.35	6.04	7.53	18.56	19.24	19.64	20.33	21.82
	4H	4.56	5.21	5.65	6.30	7.79	19.20	19.84	20.29	20.93	22.43
	6H	4.80	5.40	5.91	6.49	8.00	19.62	20.21	20.72	21.31	22.82
	8H	4.87	5.44	5.98	6.55	8.05	19.73	20.30	20.84	21.41	22.91
	12H	4.88	5.42	5.99	6.53	8.05	19.79	20.34	20.91	21.44	22.96
4H	2H	10.76	11.41	11.86	12.50	14.00	16.99	17.64	18.09	18.73	20.23
	3H	12.32	12.86	13.43	13.98	15.49	19.03	19.57	20.13	20.68	22.19
	4H	12.41	12.91	13.52	14.01	15.55	19.78	20.28	20.90	21.39	22.92
	6H	12.42	12.85	13.54	13.97	15.50	20.31	20.74	21.43	21.87	23.39
	8H	12.39	12.79	13.51	13.91	15.45	20.47	20.87	21.59	21.99	23.53
	12H	12.34	12.71	13.48	13.84	15.38	20.56	20.92	21.69	22.05	23.60
8H	4H	13.84	14.24	14.96	15.36	16.90	19.84	20.24	20.96	21.36	22.90
	6H	14.08	14.41	15.22	15.57	17.11	20.46	20.79	21.60	21.95	23.49
	8H	14.10	14.39	15.24	15.53	17.09	20.67	20.96	21.82	22.10	23.66
	12H	14.06	14.32	15.21	15.46	17.05	20.81	21.06	21.96	22.20	23.79
12H	4H	13.98	14.34	15.12	15.48	17.02	19.78	20.15	20.92	21.28	22.82
	6H	14.34	14.63	15.48	15.77	17.33	20.44	20.73	21.59	21.87	23.43
	8H	14.40	14.66	15.55	15.80	17.39	20.66	20.92	21.81	22.06	23.65