

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: P938091

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

**Test Information**

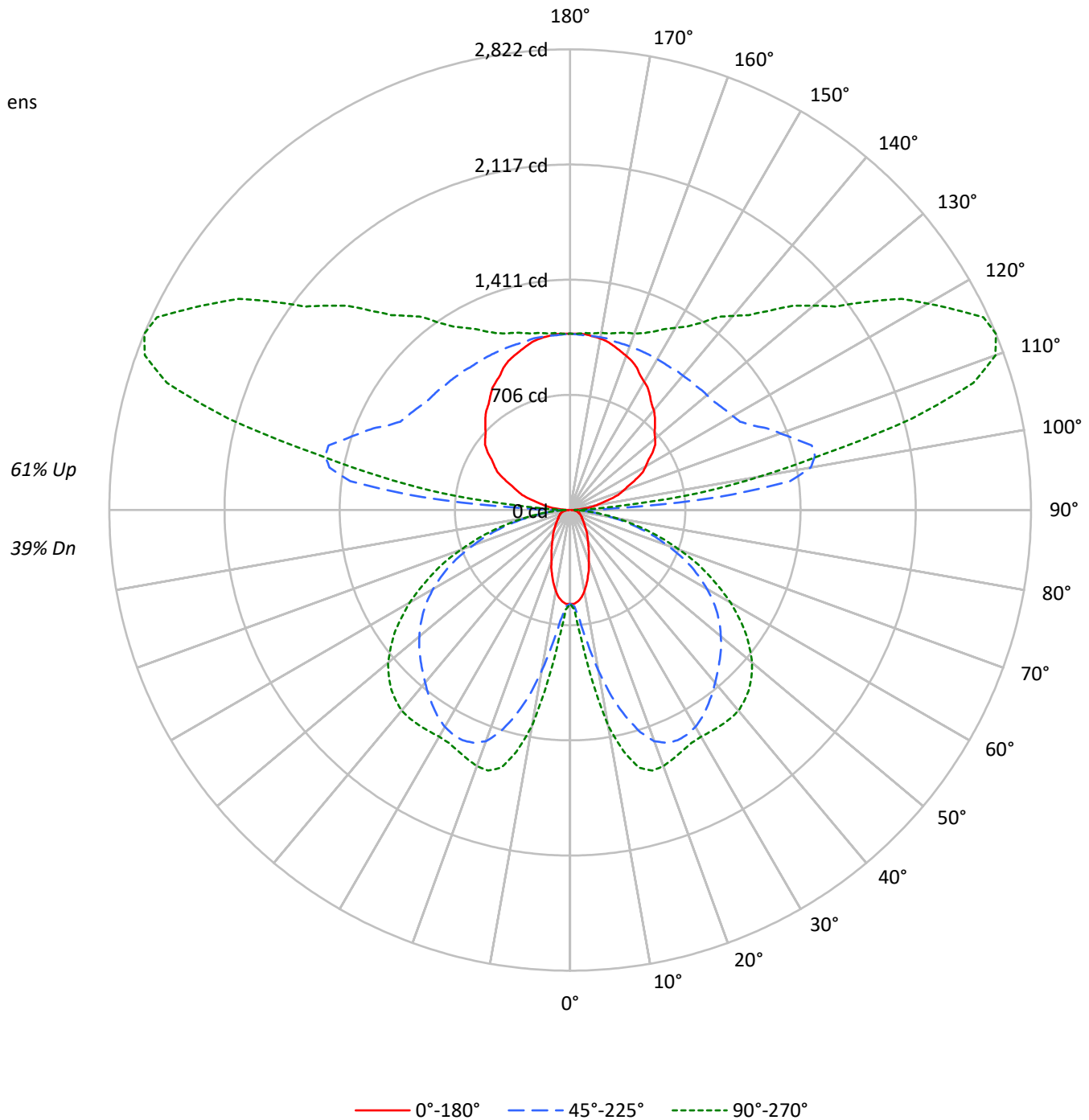
Test Method: LM-79-2019  
Report Number: P938091  
REPORT IS A COMBINATION OF REPORTS P933607 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11463.9 lumens  
Efficiency: N/A  
Efficacy: 118.7 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): 96.6  
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

TEST NUMBER: P938091  
CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-UNV-STD-W-6-5000K

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3561	3561	3561
5°	3478	4114	4787
10°	3153	5997	7935
15°	2679	7833	9582
20°	2180	9075	9766
25°	1818	9494	9567
30°	1532	9552	9549
35°	1354	9390	9796
40°	1179	9181	10051
45°	1067	9028	10090
50°	979	8889	9924
55°	935	8687	9484
60°	957	8302	8789
65°	994	7718	7834
70°	1057	6727	6618
75°	1166	5479	5165
80°	1266	3796	3481
85°	1103	2011	1781

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10090 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.5	0.6
10°-20°	330.0	2.9
20°-30°	577.3	5.0
30°-40°	743.1	6.5
40°-50°	830.0	7.2
50°-60°	795.0	6.9
60°-70°	630.0	5.5
70°-80°	370.5	3.2
80°-90°	107.0	0.9
90°-100°	526.8	4.6
100°-110°	1385.1	12.1
110°-120°	1436.2	12.5
120°-130°	1152.0	10.0
130°-140°	903.9	7.9
140°-150°	693.8	6.1
150°-160°	499.6	4.4
160°-170°	305.7	2.7
170°-180°	103.3	0.9
0°-30°	981.8	8.6
0°-40°	1724.9	15.0
0°-60°	3349.9	29.2
0°-90°	4457.4	38.9
90°-120°	3348.1	29.2
90°-150°	6097.8	53.2
90°-180°	7006.0	61.1
0°-180°	11463.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	576	576	576	576	576	
5°	561	602	677	766	794	52
15°	420	776	1307	1584	1634	117
25°	268	879	1557	1625	1627	124
35°	181	840	1466	1549	1610	113
45°	124	670	1296	1484	1551	96
55°	89	426	1100	1277	1312	81
65°	70	226	816	918	931	70
75°	52	139	448	492	494	54
85°	18	43	111	122	124	20
90°	7	20	55	28	28	7
95°	70	273	908	468	318	77
105°	250	378	1531	2325	2169	265
115°	443	538	1227	2447	2793	438
125°	616	691	1116	1885	2224	547
135°	735	809	1081	1522	1726	569
145°	852	907	1067	1298	1400	534
155°	963	990	1067	1172	1206	443
165°	1039	1053	1067	1109	1123	293
175°	1081	1081	1074	1088	1088	103
180°	1081	1081	1081	1081	1081	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6
2.5°	575.6	575.6	579.4	581.2	584.9	586.7	590.5	594.2	605.2	607.1	610.8
5°	560.9	568.2	592.3	601.6	627.5	662.7	677.4	701.5	751.5	766.3	775.6
7.5°	538.6	555.3	614.6	629.3	694.1	786.7	825.6	877.4	957.0	995.8	1027.3
10°	503.4	538.6	644.2	679.3	784.8	925.5	997.7	1069.9	1190.2	1243.9	1264.3
12.5°	464.6	522.0	675.7	723.8	875.5	1081.0	1168.0	1247.5	1384.6	1456.8	1467.9
15°	420.2	497.9	705.3	775.6	971.7	1210.6	1306.9	1404.9	1532.6	1584.4	1597.4
17.5°	381.4	479.4	733.0	807.1	1045.8	1327.2	1425.3	1506.7	1610.4	1645.5	1654.8
20°	333.2	449.8	751.5	847.8	1123.6	1412.3	1506.7	1569.7	1640.0	1662.2	1665.9
22.5°	298.0	418.3	762.6	862.5	1175.3	1464.1	1543.7	1593.7	1641.9	1649.3	1651.1
25°	268.4	383.1	760.7	879.3	1219.8	1495.6	1556.7	1593.7	1621.5	1625.2	1625.2
27.5°	240.6	344.3	753.4	882.9	1253.1	1503.0	1551.1	1577.1	1590.0	1597.4	1597.4
30°	216.6	307.3	734.9	875.5	1267.9	1495.6	1534.5	1547.5	1560.4	1571.5	1577.1
32.5°	198.1	272.1	707.0	860.7	1269.8	1477.1	1504.9	1512.2	1530.7	1556.7	1565.9
35°	181.4	237.0	675.7	840.3	1258.7	1447.5	1466.0	1473.4	1510.4	1549.3	1562.2
37.5°	164.8	211.0	634.9	805.2	1242.0	1412.3	1425.3	1438.3	1495.6	1541.8	1556.7
40°	148.0	188.8	586.7	766.3	1216.1	1369.7	1380.8	1401.2	1477.1	1530.7	1545.6
42.5°	135.1	170.3	534.9	725.6	1182.8	1321.6	1338.2	1367.8	1454.9	1512.2	1529.0
45°	124.0	151.8	479.4	670.1	1140.2	1271.6	1295.7	1336.5	1428.9	1484.5	1499.4
47.5°	112.9	138.8	422.1	612.7	1093.9	1221.7	1253.1	1299.4	1393.8	1447.5	1460.4
50°	103.7	125.9	364.6	551.6	1043.9	1168.0	1205.0	1253.1	1349.3	1399.3	1416.0
52.5°	96.3	114.8	310.9	490.5	986.6	1112.5	1155.0	1205.0	1295.7	1343.8	1355.0
55°	88.8	105.5	264.7	425.7	927.4	1053.2	1099.5	1147.6	1236.4	1277.2	1284.6
57.5°	85.2	98.1	225.8	364.6	864.4	986.6	1038.4	1082.9	1166.1	1197.6	1205.0
60°	79.6	92.6	196.2	312.8	796.0	923.6	968.1	1012.5	1082.9	1108.8	1114.3
62.5°	74.1	88.8	174.0	262.8	725.6	849.6	894.0	934.7	994.0	1012.5	1019.9
65°	70.3	85.2	157.4	225.8	653.4	771.9	816.3	851.4	899.6	918.1	921.8
67.5°	66.6	81.4	144.4	194.4	581.2	694.1	727.4	760.7	797.8	816.3	818.2
70°	61.1	77.7	133.3	172.1	507.2	605.2	633.1	668.2	697.8	707.0	712.6
72.5°	57.3	72.2	125.9	155.5	431.3	520.1	546.0	566.4	592.3	601.6	601.6
75°	51.8	64.8	118.4	138.8	353.5	425.7	447.9	468.3	488.7	492.4	486.8
77.5°	46.2	57.3	101.8	116.7	275.8	336.9	355.4	366.5	383.1	386.9	388.7
80°	38.9	50.0	79.6	90.7	199.9	248.1	261.0	270.2	285.1	285.1	288.8
82.5°	29.6	38.9	57.3	64.8	135.1	170.3	181.4	187.0	196.2	196.2	196.2
85°	18.5	24.1	37.0	42.6	81.4	103.7	111.1	112.9	120.3	122.2	122.2
87.5°	9.2	13.0	24.1	25.9	42.6	53.7	53.7	57.3	57.3	55.6	53.7
90°	7.3	13.1	18.9	20.3	31.8	47.4	55.1	48.9	36.7	27.6	27.6
92.5°	29.0	78.4	127.7	140.0	196.8	272.5	310.5	272.1	195.4	137.9	132.3
95°	69.7	159.9	250.1	272.7	484.3	766.4	907.5	809.8	614.4	467.8	451.2
97.5°	120.4	200.0	279.6	299.5	652.3	1122.8	1357.9	1296.2	1172.7	1080.1	1048.5
100°	159.6	231.8	304.0	322.0	713.5	1235.5	1496.5	1500.9	1510.0	1516.7	1479.1
102.5°	193.0	260.3	327.7	344.6	741.6	1270.9	1535.6	1614.2	1771.6	1889.6	1857.4
105°	249.6	306.6	363.6	377.9	762.3	1275.0	1531.3	1707.6	2060.3	2324.8	2307.4
107.5°	307.6	360.7	413.9	427.2	766.3	1218.2	1444.2	1690.3	2182.2	2551.1	2555.3
110°	346.7	394.7	442.7	454.8	760.4	1167.9	1371.7	1646.6	2196.7	2609.2	2627.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	385.2	430.9	476.7	488.2	760.6	1124.0	1305.6	1587.1	2150.0	2572.1	2599.9
115°	443.2	485.4	527.7	538.3	767.7	1073.6	1226.6	1497.8	2040.0	2446.7	2485.2
117.5°	500.5	538.9	577.2	586.8	781.9	1042.1	1172.2	1416.9	1906.3	2273.4	2315.9
120°	533.9	570.0	606.1	615.1	793.5	1031.4	1150.4	1374.0	1821.1	2156.5	2198.0
122.5°	566.6	603.0	639.4	648.5	810.2	1025.9	1133.8	1335.2	1737.8	2039.8	2080.6
125°	616.5	649.8	682.9	691.3	832.8	1021.3	1115.7	1286.7	1628.7	1885.3	1922.9
127.5°	657.2	690.7	724.2	732.6	855.3	1018.7	1100.4	1247.3	1541.0	1761.2	1793.0
130°	678.9	715.1	751.1	760.2	871.6	1020.2	1094.6	1225.3	1486.7	1682.9	1712.2
132.5°	701.4	737.6	773.6	782.7	885.0	1021.3	1089.5	1206.5	1440.6	1616.1	1642.3
135°	734.8	767.7	800.5	808.8	899.4	1020.4	1080.8	1178.8	1374.8	1521.9	1544.5
137.5°	768.9	801.5	834.1	842.2	921.2	1026.7	1079.3	1162.2	1327.9	1452.2	1470.7
140°	797.2	827.2	857.1	864.6	934.5	1027.7	1074.3	1145.8	1289.0	1396.3	1413.7
142.5°	818.9	846.7	874.4	881.3	945.7	1031.4	1074.3	1137.1	1262.9	1357.2	1372.1
145°	852.3	876.5	900.7	906.7	960.2	1031.4	1067.0	1118.5	1221.3	1298.4	1309.7
147.5°	885.7	909.2	932.8	938.7	981.4	1038.5	1067.0	1107.4	1188.4	1249.1	1258.5
150°	907.5	928.8	950.0	955.3	992.6	1042.2	1067.0	1101.2	1169.6	1220.8	1228.4
152.5°	929.9	946.0	962.2	966.2	999.8	1044.6	1067.0	1096.1	1154.5	1198.3	1204.0
155°	963.3	975.3	987.1	990.1	1015.7	1049.9	1067.0	1090.3	1136.7	1171.5	1175.3
157.5°	988.0	999.6	1011.1	1014.0	1031.7	1055.2	1067.0	1085.0	1121.2	1148.3	1150.9
160°	1004.6	1013.7	1022.7	1025.0	1039.0	1057.7	1067.0	1082.5	1113.4	1136.7	1138.2
162.5°	1021.3	1028.1	1034.9	1036.6	1046.7	1060.3	1067.0	1080.1	1106.1	1125.8	1127.2
165°	1039.4	1045.6	1051.8	1053.3	1057.8	1063.9	1067.0	1076.3	1095.1	1109.1	1110.6
167.5°	1056.2	1059.1	1062.0	1062.7	1066.5	1071.7	1074.3	1080.5	1092.7	1101.8	1102.5
170°	1067.0	1069.9	1072.8	1073.5	1073.8	1074.1	1074.3	1080.5	1092.7	1101.8	1101.8
172.5°	1072.8	1073.4	1074.1	1074.3	1074.3	1074.3	1074.3	1079.1	1088.8	1096.0	1095.5
175°	1080.8	1080.8	1080.8	1080.8	1078.7	1075.8	1074.3	1077.4	1083.5	1088.1	1088.1
177.5°	1080.8	1080.8	1080.8	1080.8	1079.1	1076.8	1075.7	1078.1	1083.0	1086.6	1086.0
180°	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8	1080.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	575.6	575.6
2.5°	614.6	610.8
5°	790.4	794.1
7.5°	1064.3	1062.5
10°	1323.5	1340.1
12.5°	1512.2	1516.0
15°	1627.0	1634.4
17.5°	1671.5	1673.3
20°	1673.3	1669.6
22.5°	1652.9	1649.3
25°	1628.9	1627.0
27.5°	1606.7	1608.5
30°	1597.4	1602.9
32.5°	1597.4	1606.7
35°	1601.2	1610.4
37.5°	1599.3	1610.4
40°	1591.8	1604.8
42.5°	1571.5	1580.8
45°	1540.1	1551.1
47.5°	1499.4	1506.7
50°	1447.5	1454.9
52.5°	1382.7	1384.6
55°	1305.0	1312.4
57.5°	1221.7	1223.5
60°	1129.1	1134.6
62.5°	1031.0	1031.0
65°	927.4	931.0
67.5°	820.0	829.2
70°	710.8	712.6
72.5°	603.5	603.5
75°	492.4	494.2
77.5°	386.9	386.9
80°	286.9	288.8
82.5°	198.1	201.7
85°	124.0	124.0
87.5°	57.3	51.8
90°	27.6	27.6
92.5°	110.4	88.4
95°	384.8	318.4
97.5°	922.1	795.8
100°	1328.6	1178.1
102.5°	1728.4	1599.5
105°	2238.1	2168.8
107.5°	2572.0	2588.9
110°	2699.4	2771.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2710.7	2821.7
115°	2638.9	2792.7
117.5°	2486.5	2657.0
120°	2363.7	2529.4
122.5°	2244.0	2407.5
125°	2073.5	2224.0
127.5°	1920.0	2047.0
130°	1829.6	1946.9
132.5°	1747.5	1852.6
135°	1635.1	1725.7
137.5°	1544.8	1619.0
140°	1483.0	1552.3
142.5°	1431.7	1491.4
145°	1354.9	1400.0
147.5°	1295.9	1333.3
150°	1258.8	1289.0
152.5°	1226.9	1249.8
155°	1190.5	1205.6
157.5°	1161.5	1172.2
160°	1144.3	1150.4
162.5°	1133.0	1138.8
165°	1116.8	1122.9
167.5°	1105.0	1107.6
170°	1101.8	1101.8
172.5°	1093.2	1091.0
175°	1088.1	1088.1
177.5°	1083.4	1080.8
180°	1080.8	1080.8



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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	4.30	5.10	5.34	6.15	7.57	17.47	18.26	18.51	19.32	20.73
	3H	5.00	5.72	6.05	6.78	8.21	19.30	20.01	20.35	21.07	22.51
	4H	5.30	5.98	6.36	7.04	8.48	19.94	20.62	21.00	21.68	23.12
	6H	5.54	6.17	6.62	7.24	8.69	20.36	20.99	21.43	22.05	23.51
	8H	5.61	6.21	6.69	7.29	8.74	20.48	21.07	21.55	22.15	23.61
	12H	5.63	6.19	6.71	7.27	8.74	20.54	21.11	21.62	22.18	23.66
4H	2H	11.50	12.18	12.57	13.24	14.69	17.73	18.41	18.80	19.48	20.92
	3H	13.06	13.63	14.14	14.72	16.18	19.77	20.34	20.85	21.43	22.88
	4H	13.16	13.68	14.24	14.76	16.24	20.53	21.05	21.61	22.13	23.61
	6H	13.16	13.61	14.25	14.71	16.19	21.06	21.51	22.15	22.61	24.08
	8H	13.14	13.56	14.23	14.65	16.14	21.22	21.64	22.31	22.73	24.22
	12H	13.09	13.47	14.20	14.58	16.07	21.31	21.69	22.42	22.79	24.29
8H	4H	14.59	15.01	15.68	16.11	17.60	20.58	21.00	21.68	22.10	23.59
	6H	14.83	15.18	15.94	16.31	17.80	21.21	21.55	22.32	22.69	24.18
	8H	14.85	15.15	15.97	16.27	17.78	21.42	21.73	22.54	22.85	24.35
	12H	14.81	15.08	15.94	16.20	17.74	21.56	21.83	22.69	22.94	24.49
12H	4H	14.73	15.11	15.84	16.22	17.71	20.53	20.91	21.64	22.02	23.52
	6H	15.09	15.39	16.21	16.51	18.02	21.19	21.49	22.31	22.61	24.12
	8H	15.15	15.42	16.28	16.54	18.08	21.41	21.68	22.54	22.80	24.34