

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: P937568

Luminaire Tested: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

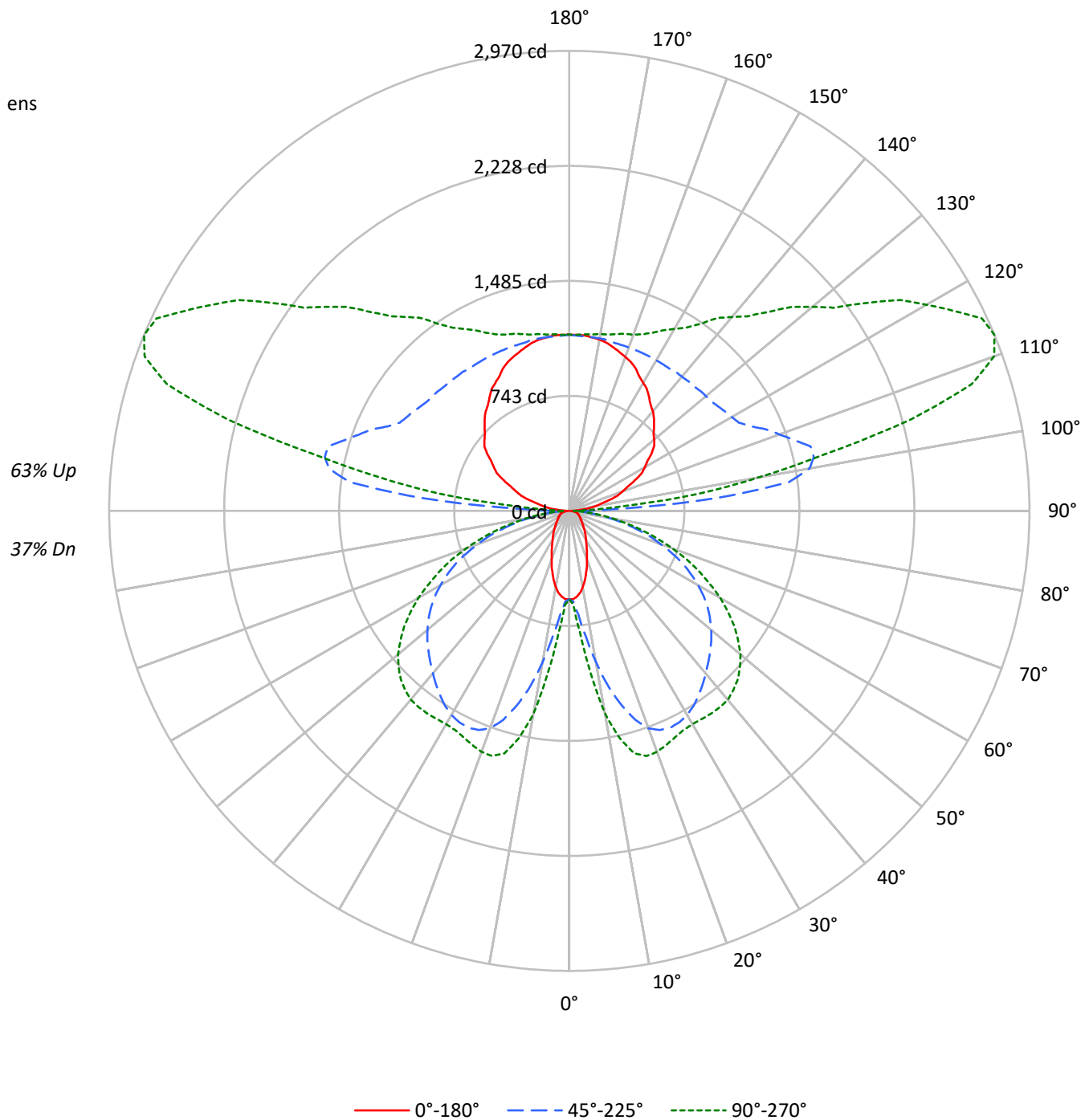
Test Method: LM-79-2019  
Report Number: P937568  
REPORT IS A COMBINATION OF REPORTS P933582 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11794.2 lumens  
Efficiency: N/A  
Efficacy: 119.9 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 98.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	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	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

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

	0°	45°	90°
0°	2648	2648	2648
5°	2587	3061	3560
10°	2347	4462	5902
15°	1994	5830	7126
20°	1624	6756	7263
25°	1354	7070	7115
30°	1142	7114	7102
35°	1010	6996	7286
40°	880	6843	7475
45°	797	6730	7504
50°	731	6629	7380
55°	700	6481	7053
60°	717	6196	6537
65°	745	5763	5827
70°	795	5026	4922
75°	880	4098	3841
80°	961	2842	2588
85°	857	1507	1325

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7504 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.8	0.6
10°-20°	327.3	2.8
20°-30°	572.4	4.9
30°-40°	736.9	6.2
40°-50°	823.1	7.0
50°-60°	788.3	6.7
60°-70°	624.7	5.3
70°-80°	367.3	3.1
80°-90°	106.4	0.9
90°-100°	554.5	4.7
100°-110°	1457.7	12.4
110°-120°	1511.5	12.8
120°-130°	1212.4	10.3
130°-140°	951.3	8.1
140°-150°	730.2	6.2
150°-160°	525.8	4.5
160°-170°	321.7	2.7
170°-180°	108.7	0.9
0°-30°	973.5	8.3
0°-40°	1710.4	14.5
0°-60°	3321.8	28.2
0°-90°	4420.3	37.5
90°-120°	3523.7	29.9
90°-150°	6417.7	54.4
90°-180°	7374.0	62.5
0°-180°	11794.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	571	571	571	571	571	
5°	556	596	672	760	787	51
15°	417	769	1296	1571	1621	116
25°	266	872	1544	1612	1613	123
35°	180	833	1454	1536	1597	112
45°	123	664	1285	1472	1538	95
55°	88	422	1090	1266	1301	80
65°	70	224	809	910	923	69
75°	51	138	444	488	490	54
85°	18	42	110	121	123	19
90°	8	21	58	29	29	8
95°	73	287	955	492	335	81
105°	263	398	1612	2447	2283	278
115°	466	566	1291	2575	2939	461
125°	649	728	1174	1984	2341	576
135°	773	851	1138	1602	1816	598
145°	897	954	1123	1366	1473	562
155°	1014	1042	1123	1233	1269	466
165°	1094	1108	1123	1167	1182	309
175°	1138	1138	1131	1145	1145	108
180°	1138	1138	1138	1138	1138	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8	570.8
2.5°	570.8	570.8	574.5	576.3	580.0	581.8	585.5	589.2	600.2	602.0	605.7
5°	556.1	563.5	587.3	596.5	622.2	657.1	671.8	695.6	745.2	759.9	769.0
7.5°	534.1	550.6	609.3	624.0	688.3	780.0	818.6	870.0	948.9	987.4	1018.6
10°	499.2	534.1	638.7	673.6	778.2	917.7	989.3	1060.9	1180.2	1233.5	1253.7
12.5°	460.7	517.6	669.9	717.6	868.1	1072.0	1158.2	1237.1	1373.0	1444.5	1455.6
15°	416.6	493.7	699.3	769.0	963.6	1200.4	1295.9	1393.2	1519.8	1571.2	1584.0
17.5°	378.1	475.4	726.8	800.2	1037.0	1316.1	1413.3	1494.1	1596.9	1631.8	1640.9
20°	330.4	446.0	745.2	840.6	1114.2	1400.5	1494.1	1556.5	1626.2	1648.3	1651.9
22.5°	295.5	414.8	756.2	855.3	1165.6	1451.9	1530.8	1580.4	1628.1	1635.4	1637.3
25°	266.1	379.9	754.3	871.8	1209.6	1483.1	1543.7	1580.4	1607.9	1611.6	1611.6
27.5°	238.6	341.4	747.0	875.5	1242.7	1490.4	1538.1	1563.8	1576.7	1584.0	1584.0
30°	214.7	304.7	728.6	868.1	1257.3	1483.1	1521.6	1534.5	1547.3	1558.3	1563.8
32.5°	196.4	269.8	701.1	853.5	1259.2	1464.7	1492.3	1499.6	1518.0	1543.7	1552.8
35°	179.9	234.9	669.9	833.3	1248.2	1435.4	1453.7	1461.1	1497.8	1536.3	1549.2
37.5°	163.3	209.2	629.5	798.4	1231.6	1400.5	1413.3	1426.2	1483.1	1529.0	1543.7
40°	146.8	187.2	581.8	759.9	1205.9	1358.3	1369.3	1389.5	1464.7	1518.0	1532.6
42.5°	134.0	168.9	530.4	719.5	1172.9	1310.6	1327.1	1356.4	1442.7	1499.6	1516.1
45°	123.0	150.5	475.4	664.4	1130.7	1261.0	1284.9	1325.2	1417.0	1472.1	1486.8
47.5°	112.0	137.7	418.5	607.5	1084.8	1211.4	1242.7	1288.5	1382.1	1435.4	1448.2
50°	102.8	124.8	361.6	546.9	1035.2	1158.2	1194.9	1242.7	1338.1	1387.6	1404.2
52.5°	95.4	113.8	308.3	486.4	978.3	1103.2	1145.4	1194.9	1284.9	1332.6	1343.6
55°	88.1	104.6	262.5	422.1	919.5	1044.4	1090.3	1138.0	1226.1	1266.5	1273.9
57.5°	84.4	97.3	223.9	361.6	857.1	978.3	1029.7	1073.8	1156.4	1187.6	1194.9
60°	78.9	91.8	194.6	310.2	789.2	915.9	959.9	1004.0	1073.8	1099.5	1105.0
62.5°	73.4	88.1	172.5	260.6	719.5	842.4	886.5	926.9	985.6	1004.0	1011.3
65°	69.7	84.4	156.0	223.9	647.9	765.4	809.4	844.3	892.0	910.4	914.0
67.5°	66.1	80.8	143.2	192.7	576.3	688.3	721.3	754.3	791.1	809.4	811.2
70°	60.6	77.1	132.1	170.7	502.9	600.2	627.7	662.6	691.9	701.1	706.6
72.5°	56.9	71.6	124.8	154.2	427.6	515.7	541.4	561.6	587.3	596.5	596.5
75°	51.4	64.2	117.5	137.7	350.6	422.1	444.2	464.4	484.5	488.2	482.7
77.5°	45.9	56.9	100.9	115.6	273.5	334.0	352.4	363.4	379.9	383.6	385.4
80°	38.5	49.6	78.9	89.9	198.2	245.9	258.8	268.0	282.7	282.7	286.3
82.5°	29.4	38.5	56.9	64.2	134.0	168.9	179.9	185.4	194.6	194.6	194.6
85°	18.4	23.9	36.7	42.2	80.8	102.8	110.1	112.0	119.3	121.1	121.1
87.5°	9.2	12.8	23.9	25.7	42.2	53.2	53.2	56.9	56.9	55.1	53.2
90°	7.6	13.8	19.8	21.4	33.6	49.8	58.0	51.6	38.6	29.0	29.0
92.5°	30.6	82.5	134.4	147.4	207.1	286.9	326.7	286.3	205.7	145.1	139.3
95°	73.3	168.3	263.3	287.1	509.7	806.6	955.0	852.3	646.6	492.4	475.0
97.5°	126.7	210.5	294.4	315.3	686.6	1181.6	1429.1	1364.2	1234.2	1136.7	1103.5
100°	167.9	243.9	320.0	339.0	750.9	1300.3	1574.9	1579.7	1589.2	1596.3	1556.7
102.5°	203.1	273.9	344.9	362.6	780.4	1337.5	1616.2	1698.9	1864.6	1988.7	1954.8
105°	262.6	322.7	382.7	397.7	802.3	1341.9	1611.6	1797.1	2168.3	2446.8	2428.5
107.5°	323.7	379.7	435.6	449.7	806.5	1282.1	1520.0	1778.9	2296.6	2684.9	2689.3
110°	364.9	415.4	466.0	478.7	800.3	1229.2	1443.6	1733.1	2311.9	2746.0	2765.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	405.3	453.5	501.8	513.8	800.6	1183.0	1374.2	1670.4	2262.8	2707.1	2736.3
115°	466.5	510.9	555.4	566.5	807.9	1130.0	1290.9	1576.3	2147.0	2575.1	2615.5
117.5°	526.8	567.1	607.5	617.6	823.0	1096.7	1233.7	1491.2	2006.3	2392.5	2437.4
120°	561.9	599.9	637.9	647.3	835.2	1085.6	1210.8	1446.1	1916.7	2269.6	2313.2
122.5°	596.2	634.6	672.9	682.5	852.7	1079.7	1193.2	1405.1	1828.9	2146.8	2189.8
125°	648.9	683.9	718.8	727.5	876.4	1074.9	1174.1	1354.2	1714.2	1984.1	2023.8
127.5°	691.7	726.9	762.2	771.0	900.1	1072.1	1158.1	1312.7	1621.8	1853.6	1887.0
130°	714.5	752.5	790.5	800.0	917.3	1073.8	1152.0	1289.5	1564.8	1771.2	1802.0
132.5°	738.2	776.2	814.2	823.7	931.4	1074.9	1146.7	1269.8	1516.1	1700.9	1728.5
135°	773.3	807.9	842.6	851.3	946.7	1073.9	1137.5	1240.6	1446.9	1601.7	1625.5
137.5°	809.2	843.5	877.8	886.3	969.5	1080.5	1135.9	1223.1	1397.6	1528.3	1547.9
140°	839.0	870.5	902.1	910.0	983.5	1081.6	1130.6	1205.9	1356.6	1469.6	1487.9
142.5°	861.9	891.1	920.3	927.5	995.2	1085.4	1130.6	1196.8	1329.1	1428.4	1444.1
145°	897.0	922.5	948.0	954.3	1010.6	1085.5	1123.0	1177.1	1285.3	1366.5	1378.4
147.5°	932.1	956.9	981.7	987.9	1033.0	1093.0	1123.0	1165.6	1250.7	1314.6	1324.4
150°	955.0	977.4	999.8	1005.4	1044.6	1096.8	1123.0	1159.0	1230.9	1284.9	1292.8
152.5°	978.7	995.7	1012.7	1016.9	1052.2	1099.4	1123.0	1153.7	1215.1	1261.2	1267.2
155°	1013.8	1026.4	1038.9	1042.0	1069.0	1105.0	1123.0	1147.4	1196.3	1232.9	1236.9
157.5°	1039.7	1052.0	1064.3	1067.3	1085.8	1110.6	1123.0	1142.0	1180.0	1208.5	1211.3
160°	1057.4	1066.9	1076.4	1078.8	1093.5	1113.2	1123.0	1139.3	1171.9	1196.3	1198.0
162.5°	1074.9	1082.1	1089.2	1091.0	1101.6	1115.8	1123.0	1136.7	1164.2	1184.8	1186.4
165°	1094.0	1100.4	1106.8	1108.5	1113.3	1119.8	1123.0	1132.8	1152.5	1167.3	1169.0
167.5°	1111.5	1114.5	1117.7	1118.4	1122.4	1127.8	1130.6	1137.0	1150.0	1159.6	1160.2
170°	1123.0	1126.0	1129.1	1129.9	1130.1	1130.4	1130.6	1137.0	1150.0	1159.6	1159.6
172.5°	1129.1	1129.8	1130.4	1130.6	1130.6	1130.6	1130.6	1135.7	1145.9	1153.5	1153.0
175°	1137.5	1137.5	1137.5	1137.5	1135.2	1132.2	1130.6	1133.8	1140.2	1145.1	1145.1
177.5°	1137.5	1137.5	1137.5	1137.5	1135.7	1133.4	1132.2	1134.7	1139.8	1143.6	1143.0
180°	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	570.8	570.8
2.5°	609.3	605.7
5°	783.7	787.4
7.5°	1055.4	1053.6
10°	1312.4	1328.9
12.5°	1499.6	1503.3
15°	1613.4	1620.7
17.5°	1657.4	1659.3
20°	1659.3	1655.6
22.5°	1639.1	1635.4
25°	1615.2	1613.4
27.5°	1593.2	1595.0
30°	1584.0	1589.5
32.5°	1584.0	1593.2
35°	1587.7	1596.9
37.5°	1585.9	1596.9
40°	1578.5	1591.4
42.5°	1558.3	1567.5
45°	1527.1	1538.1
47.5°	1486.8	1494.1
50°	1435.4	1442.7
52.5°	1371.1	1373.0
55°	1294.0	1301.4
57.5°	1211.4	1213.3
60°	1119.7	1125.2
62.5°	1022.3	1022.3
65°	919.5	923.2
67.5°	813.1	822.3
70°	704.8	706.6
72.5°	598.3	598.3
75°	488.2	490.0
77.5°	383.6	383.6
80°	284.5	286.3
82.5°	196.4	200.1
85°	123.0	123.0
87.5°	56.9	51.4
90°	29.0	29.0
92.5°	116.3	93.1
95°	405.1	335.1
97.5°	970.5	837.5
100°	1398.3	1239.8
102.5°	1819.1	1683.3
105°	2355.5	2282.6
107.5°	2707.0	2724.6
110°	2841.0	2917.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2852.9	2969.7
115°	2777.3	2939.2
117.5°	2616.9	2796.4
120°	2487.7	2662.0
122.5°	2361.8	2533.8
125°	2182.2	2340.7
127.5°	2020.7	2154.4
130°	1925.5	2049.0
132.5°	1839.2	1949.7
135°	1720.9	1816.2
137.5°	1625.9	1704.0
140°	1560.7	1633.7
142.5°	1506.9	1569.6
145°	1425.9	1473.4
147.5°	1363.8	1403.2
150°	1324.7	1356.6
152.5°	1291.3	1315.3
155°	1252.8	1268.8
157.5°	1222.5	1233.7
160°	1204.4	1210.8
162.5°	1192.5	1198.6
165°	1175.4	1181.8
167.5°	1163.0	1165.7
170°	1159.6	1159.6
172.5°	1150.6	1148.2
175°	1145.1	1145.1
177.5°	1140.2	1137.5
180°	1137.5	1137.5



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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	3.12	3.91	4.17	4.97	6.40	16.30	17.09	17.35	18.15	19.58
	3H	3.82	4.53	4.88	5.60	7.05	18.13	18.84	19.19	19.91	21.36
	4H	4.12	4.79	5.19	5.86	7.32	18.78	19.44	19.85	20.52	21.98
	6H	4.36	4.98	5.44	6.05	7.53	19.20	19.82	20.28	20.89	22.37
	8H	4.43	5.02	5.51	6.11	7.57	19.32	19.91	20.41	21.00	22.47
	12H	4.44	5.00	5.53	6.09	7.58	19.39	19.94	20.48	21.03	22.52
4H	2H	10.33	11.00	11.41	12.07	13.53	16.57	17.23	17.64	18.30	19.77
	3H	11.89	12.45	12.97	13.55	15.02	18.60	19.16	19.69	20.26	21.74
	4H	11.98	12.49	13.07	13.58	15.08	19.37	19.88	20.46	20.97	22.46
	6H	11.99	12.43	13.09	13.54	15.03	19.90	20.34	21.00	21.46	22.94
	8H	11.96	12.37	13.06	13.48	14.98	20.06	20.48	21.16	21.58	23.08
	12H	11.91	12.29	13.03	13.40	14.91	20.15	20.53	21.27	21.64	23.15
8H	4H	13.42	13.83	14.52	14.93	16.44	19.42	19.83	20.52	20.94	22.44
	6H	13.66	14.00	14.78	15.14	16.65	20.05	20.39	21.17	21.53	23.04
	8H	13.67	13.97	14.80	15.10	16.62	20.27	20.57	21.39	21.69	23.21
	12H	13.64	13.90	14.77	15.02	16.58	20.41	20.67	21.54	21.79	23.35
12H	4H	13.56	13.93	14.68	15.05	16.56	19.37	19.74	20.49	20.86	22.37
	6H	13.91	14.21	15.04	15.34	16.86	20.03	20.33	21.16	21.45	22.98
	8H	13.98	14.24	15.11	15.37	16.92	20.25	20.52	21.39	21.64	23.20