

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: P938346

Luminaire Tested: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

**Test Information**

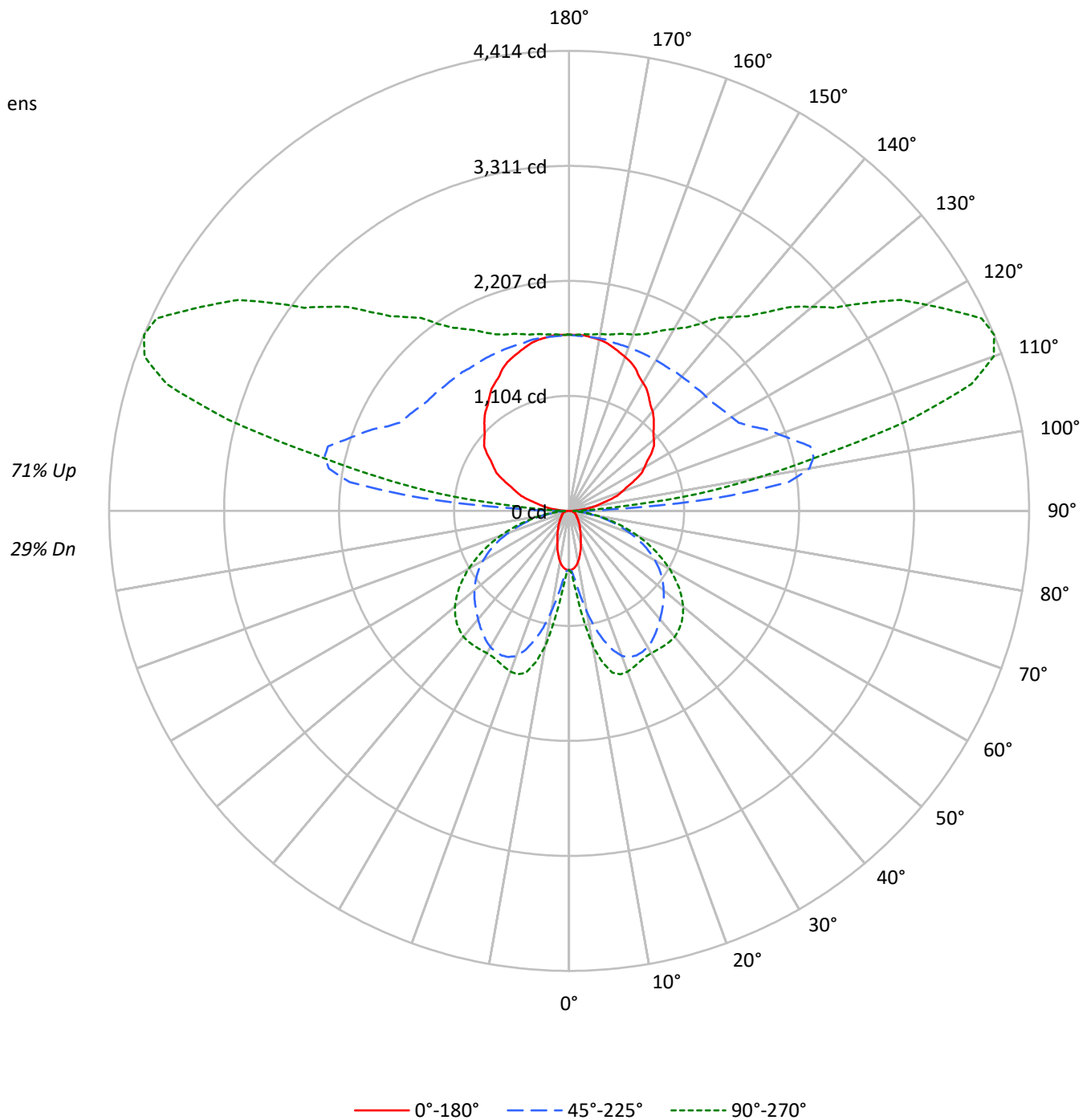
Test Method: LM-79-2019  
Report Number: P938346  
REPORT IS A COMBINATION OF REPORTS P933646 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-8-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15343.7 lumens  
Efficiency: N/A  
Efficacy: 120.6 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): 127.2  
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

TEST NUMBER: P938346  
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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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25			19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21			16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15			11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13			10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11			8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10			7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9			6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8			6

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

	0°	45°	90°
0°	2625	2625	2625
5°	2564	3034	3529
10°	2326	4423	5850
15°	1977	5779	7064
20°	1610	6696	7199
25°	1343	7007	7053
30°	1132	7052	7040
35°	1001	6935	7222
40°	872	6783	7410
45°	790	6671	7439
50°	725	6570	7315
55°	694	6424	6992
60°	710	6141	6479
65°	739	5713	5775
70°	787	4982	4879
75°	872	4062	3807
80°	953	2817	2566
85°	848	1495	1313

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7439 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	0.5
10°-20°	324.4	2.1
20°-30°	567.4	3.7
30°-40°	730.4	4.8
40°-50°	815.9	5.3
50°-60°	781.4	5.1
60°-70°	619.2	4.0
70°-80°	364.1	2.4
80°-90°	107.6	0.7
90°-100°	824.1	5.4
100°-110°	2166.7	14.1
110°-120°	2246.6	14.6
120°-130°	1802.1	11.7
130°-140°	1414.0	9.2
140°-150°	1085.3	7.1
150°-160°	781.6	5.1
160°-170°	478.2	3.1
170°-180°	161.6	1.1
0°-30°	965.0	6.3
0°-40°	1695.4	11.0
0°-60°	3292.7	21.5
0°-90°	4383.6	28.6
90°-120°	5237.4	34.1
90°-150°	9538.8	62.2
90°-180°	10960.0	71.4
0°-180°	15343.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	551	591	666	753	780	51
15°	413	762	1284	1557	1606	115
25°	264	864	1530	1597	1599	122
35°	178	826	1441	1523	1583	111
45°	122	659	1274	1459	1525	94
55°	87	418	1081	1255	1290	80
65°	69	222	802	902	915	69
75°	51	136	440	484	486	53
85°	18	42	109	120	122	19
90°	11	32	86	43	43	11
95°	109	427	1420	732	498	121
105°	390	591	2395	3637	3393	414
115°	693	842	1919	3827	4368	685
125°	964	1081	1745	2949	3479	856
135°	1149	1265	1691	2381	2699	889
145°	1333	1418	1669	2031	2190	835
155°	1507	1549	1669	1833	1886	692
165°	1626	1648	1669	1735	1756	459
175°	1691	1691	1680	1702	1702	160
180°	1691	1691	1691	1691	1691	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8	565.8
2.5°	565.8	565.8	569.4	571.3	574.9	576.7	580.3	584.0	594.9	596.7	600.4
5°	551.2	558.5	582.2	591.3	616.7	651.3	665.9	689.5	738.6	753.2	762.3
7.5°	529.4	545.8	604.0	618.6	682.2	773.2	811.4	862.3	940.6	978.8	1009.7
10°	494.8	529.4	633.1	667.7	771.4	909.6	980.6	1051.6	1169.9	1222.6	1242.7
12.5°	456.6	513.0	664.0	711.3	860.5	1062.5	1148.1	1226.3	1360.9	1431.9	1442.8
15°	413.0	489.4	693.1	762.3	955.1	1189.9	1284.5	1380.9	1506.4	1557.4	1570.1
17.5°	374.8	471.2	720.4	793.2	1027.9	1304.5	1400.9	1481.0	1582.9	1617.4	1626.5
20°	327.5	442.1	738.6	833.2	1104.4	1388.2	1481.0	1542.8	1612.0	1633.8	1637.4
22.5°	292.9	411.2	749.5	847.8	1155.3	1439.1	1517.4	1566.5	1613.8	1621.1	1622.9
25°	263.8	376.6	747.7	864.2	1199.0	1470.1	1530.1	1566.5	1593.8	1597.4	1597.4
27.5°	236.5	338.4	740.4	867.8	1231.7	1477.3	1524.6	1550.1	1562.8	1570.1	1570.1
30°	212.9	302.0	722.3	860.5	1246.3	1470.1	1508.3	1521.0	1533.7	1544.7	1550.1
32.5°	194.7	267.4	695.0	846.0	1248.1	1451.9	1479.2	1486.4	1504.6	1530.1	1539.2
35°	178.3	232.9	664.0	826.0	1237.2	1422.8	1441.0	1448.2	1484.6	1522.8	1535.6
37.5°	161.9	207.4	624.0	791.4	1220.8	1388.2	1400.9	1413.7	1470.1	1515.5	1530.1
40°	145.5	185.6	576.7	753.2	1195.4	1346.4	1357.3	1377.3	1451.9	1504.6	1519.2
42.5°	132.8	167.4	525.8	713.2	1162.6	1299.1	1315.4	1344.5	1430.0	1486.4	1502.8
45°	121.9	149.2	471.2	658.6	1120.8	1249.9	1273.6	1313.6	1404.6	1459.1	1473.7
47.5°	111.0	136.4	414.8	602.2	1075.3	1200.8	1231.7	1277.2	1370.0	1422.8	1435.5
50°	101.9	123.7	358.4	542.1	1026.1	1148.1	1184.4	1231.7	1326.3	1375.5	1391.8
52.5°	94.6	112.8	305.6	482.1	969.7	1093.5	1135.3	1184.4	1273.6	1320.9	1331.8
55°	87.3	103.7	260.2	418.4	911.5	1035.3	1080.7	1128.0	1215.4	1255.4	1262.7
57.5°	83.7	96.4	222.0	358.4	849.6	969.7	1020.6	1064.4	1146.2	1177.2	1184.4
60°	78.2	91.0	192.8	307.5	782.3	907.8	951.5	995.1	1064.4	1089.8	1095.3
62.5°	72.8	87.3	171.0	258.3	713.2	835.0	878.7	918.7	977.0	995.1	1002.4
65°	69.1	83.7	154.6	222.0	642.2	758.6	802.3	836.9	884.2	902.4	906.0
67.5°	65.5	80.0	141.9	191.0	571.3	682.2	715.0	747.7	784.1	802.3	804.1
70°	60.0	76.4	131.0	169.2	498.5	594.9	622.2	656.8	685.9	695.0	700.4
72.5°	56.4	71.0	123.7	152.8	423.9	511.2	536.7	556.7	582.2	591.3	591.3
75°	50.9	63.7	116.4	136.4	347.5	418.4	440.3	460.3	480.3	483.9	478.5
77.5°	45.5	56.4	100.1	114.6	271.1	331.1	349.3	360.2	376.6	380.2	382.0
80°	38.2	49.1	78.2	89.1	196.5	243.8	256.5	265.6	280.2	280.2	283.8
82.5°	29.1	38.2	56.4	63.7	132.8	167.4	178.3	183.7	192.8	192.8	192.8
85°	18.2	23.7	36.4	41.8	80.0	101.9	109.2	111.0	118.3	120.1	120.1
87.5°	9.1	12.7	23.7	25.5	41.8	52.8	52.8	56.4	56.4	54.6	52.8
90°	11.4	20.5	29.5	31.7	49.9	74.1	86.2	76.7	57.5	43.1	43.1
92.5°	45.4	122.5	199.8	219.0	307.9	426.4	485.7	425.6	305.6	215.6	207.0
95°	109.0	250.2	391.3	426.6	757.5	1198.8	1419.5	1266.7	961.1	731.9	705.9
97.5°	188.4	312.9	437.5	468.6	1020.5	1756.3	2124.2	2027.6	1834.5	1689.6	1640.2
100°	249.6	362.6	475.6	503.8	1116.2	1932.6	2340.9	2348.0	2362.1	2372.6	2313.8
102.5°	301.8	407.2	512.6	539.0	1160.1	1988.1	2402.2	2525.2	2771.3	2955.9	2905.5
105°	390.3	479.6	568.9	591.2	1192.5	1994.4	2395.3	2671.2	3222.9	3636.7	3609.6
107.5°	481.1	564.3	647.5	668.3	1198.6	1905.7	2259.2	2644.0	3413.6	3990.8	3997.3
110°	542.4	617.6	692.7	711.4	1189.5	1827.0	2145.7	2575.9	3436.2	4081.5	4109.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.5	674.1	745.7	763.6	1189.9	1758.2	2042.4	2482.7	3363.2	4023.6	4067.0
115°	693.3	759.4	825.4	842.0	1200.9	1679.5	1918.8	2342.9	3191.1	3827.3	3887.4
117.5°	782.9	843.0	903.0	918.0	1223.2	1630.2	1833.6	2216.4	2982.0	3556.1	3622.8
120°	835.1	891.6	948.1	962.2	1241.4	1613.5	1799.6	2149.4	2848.9	3373.5	3438.2
122.5°	886.2	943.2	1000.1	1014.4	1267.5	1604.9	1773.5	2088.4	2718.4	3190.7	3254.7
125°	964.5	1016.4	1068.4	1081.4	1302.6	1597.6	1745.1	2012.7	2547.7	2949.0	3007.9
127.5°	1028.1	1080.5	1133.0	1146.1	1337.8	1593.5	1721.3	1951.0	2410.4	2755.0	2804.7
130°	1062.1	1118.6	1175.1	1189.2	1363.5	1596.0	1712.2	1916.7	2325.8	2632.5	2678.4
132.5°	1097.3	1153.8	1210.3	1224.4	1384.4	1597.7	1704.3	1887.3	2253.4	2528.1	2569.2
135°	1149.4	1200.9	1252.4	1265.2	1407.0	1596.1	1690.7	1844.0	2150.7	2380.6	2416.0
137.5°	1202.8	1253.8	1304.6	1317.3	1441.0	1606.0	1688.5	1818.1	2077.2	2271.6	2300.7
140°	1247.0	1294.0	1340.8	1352.5	1461.9	1607.6	1680.5	1792.4	2016.4	2184.3	2211.4
142.5°	1281.0	1324.4	1367.8	1378.6	1479.3	1613.4	1680.5	1778.8	1975.5	2123.0	2146.3
145°	1333.3	1371.1	1408.9	1418.4	1502.0	1613.4	1669.1	1749.5	1910.4	2031.1	2048.8
147.5°	1385.5	1422.3	1459.1	1468.3	1535.3	1624.5	1669.1	1732.4	1858.9	1953.9	1968.5
150°	1419.5	1452.8	1486.1	1494.4	1552.6	1630.3	1669.1	1722.6	1829.5	1909.7	1921.5
152.5°	1454.7	1479.9	1505.2	1511.5	1564.0	1634.1	1669.1	1714.8	1806.0	1874.5	1883.4
155°	1506.9	1525.6	1544.2	1548.8	1589.0	1642.3	1669.1	1705.4	1778.1	1832.6	1838.5
157.5°	1545.5	1563.7	1581.8	1586.3	1613.9	1650.7	1669.1	1697.4	1753.9	1796.3	1800.4
160°	1571.6	1585.7	1599.8	1603.3	1625.2	1654.4	1669.1	1693.3	1741.8	1778.1	1780.4
162.5°	1597.7	1608.2	1618.9	1621.5	1637.3	1658.5	1669.1	1689.6	1730.4	1761.1	1763.3
165°	1626.0	1635.5	1645.2	1647.5	1654.7	1664.3	1669.1	1683.7	1713.0	1735.0	1737.3
167.5°	1652.1	1656.6	1661.2	1662.4	1668.4	1676.5	1680.5	1690.0	1709.2	1723.6	1724.6
170°	1669.1	1673.6	1678.2	1679.4	1679.7	1680.2	1680.5	1690.0	1709.2	1723.6	1723.6
172.5°	1678.2	1679.2	1680.2	1680.5	1680.5	1680.5	1680.5	1688.0	1703.1	1714.5	1713.6
175°	1690.7	1690.7	1690.7	1690.7	1687.3	1682.7	1680.5	1685.3	1694.8	1702.0	1702.0
177.5°	1690.7	1690.7	1690.7	1690.7	1688.0	1684.5	1682.7	1686.6	1694.1	1699.7	1698.7
180°	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7	1690.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	565.8	565.8
2.5°	604.0	600.4
5°	776.8	780.5
7.5°	1046.2	1044.4
10°	1300.9	1317.2
12.5°	1486.4	1490.1
15°	1599.2	1606.5
17.5°	1642.9	1644.7
20°	1644.7	1641.1
22.5°	1624.7	1621.1
25°	1601.1	1599.2
27.5°	1579.2	1581.0
30°	1570.1	1575.6
32.5°	1570.1	1579.2
35°	1573.8	1582.9
37.5°	1571.9	1582.9
40°	1564.7	1577.4
42.5°	1544.7	1553.8
45°	1513.7	1524.6
47.5°	1473.7	1481.0
50°	1422.8	1430.0
52.5°	1359.1	1360.9
55°	1282.7	1290.0
57.5°	1200.8	1202.6
60°	1109.8	1115.3
62.5°	1013.3	1013.3
65°	911.5	915.1
67.5°	805.9	815.0
70°	698.6	700.4
72.5°	593.1	593.1
75°	483.9	485.7
77.5°	380.2	380.2
80°	282.0	283.8
82.5°	194.7	198.3
85°	121.9	121.9
87.5°	56.4	50.9
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.0	498.1
97.5°	1442.4	1244.7
100°	2078.2	1842.7
102.5°	2703.7	2502.0
105°	3501.2	3392.8
107.5°	4023.5	4049.7
110°	4222.7	4335.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4240.5	4413.9
115°	4128.0	4368.5
117.5°	3889.6	4156.4
120°	3697.5	3956.6
122.5°	3510.4	3766.1
125°	3243.5	3479.0
127.5°	3003.4	3202.1
130°	2862.0	3045.6
132.5°	2733.6	2898.0
135°	2557.7	2699.4
137.5°	2416.6	2532.6
140°	2319.8	2428.3
142.5°	2239.6	2332.9
145°	2119.4	2190.0
147.5°	2027.0	2085.5
150°	1969.0	2016.4
152.5°	1919.2	1955.1
155°	1862.2	1885.9
157.5°	1817.0	1833.6
160°	1790.1	1799.6
162.5°	1772.3	1781.4
165°	1747.0	1756.5
167.5°	1728.7	1732.7
170°	1723.6	1723.6
172.5°	1710.1	1706.6
175°	1702.0	1702.0
177.5°	1694.7	1690.7
180°	1690.7	1690.7



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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	1.97	2.69	3.09	3.80	5.35	15.15	15.86	16.26	16.98	18.52
	3H	2.66	3.31	3.79	4.43	5.99	16.98	17.62	18.10	18.74	20.30
	4H	2.96	3.57	4.09	4.69	6.26	17.61	18.22	18.75	19.35	20.91
	6H	3.20	3.76	4.34	4.89	6.46	18.04	18.60	19.18	19.72	21.30
	8H	3.26	3.80	4.41	4.94	6.51	18.15	18.69	19.30	19.83	21.40
	12H	3.27	3.78	4.42	4.92	6.51	18.22	18.72	19.37	19.86	21.45
4H	2H	9.17	9.78	10.31	10.90	12.47	15.40	16.01	16.55	17.14	18.70
	3H	10.72	11.23	11.87	12.38	13.96	17.44	17.95	18.58	19.09	20.67
	4H	10.81	11.28	11.96	12.42	14.01	18.20	18.67	19.35	19.80	21.40
	6H	10.81	11.21	11.97	12.37	13.96	18.73	19.13	19.88	20.29	21.88
	8H	10.78	11.16	11.94	12.31	13.92	18.88	19.26	20.04	20.41	22.02
	12H	10.73	11.07	11.91	12.24	13.85	18.97	19.31	20.14	20.48	22.09
8H	4H	12.24	12.62	13.40	13.77	15.38	18.24	18.62	19.40	19.77	21.38
	6H	12.48	12.79	13.65	13.98	15.58	18.87	19.18	20.04	20.37	21.97
	8H	12.49	12.76	13.67	13.94	15.56	19.08	19.36	20.27	20.53	22.15
	12H	12.45	12.69	13.64	13.86	15.52	19.22	19.46	20.41	20.63	22.29
12H	4H	12.38	12.72	13.55	13.88	15.49	18.19	18.53	19.36	19.69	21.31
	6H	12.73	13.00	13.91	14.18	15.80	18.85	19.12	20.03	20.29	21.91
	8H	12.79	13.03	13.98	14.20	15.86	19.07	19.31	20.26	20.48	22.13