

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: P937853

Luminaire Tested: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

**Test Information**

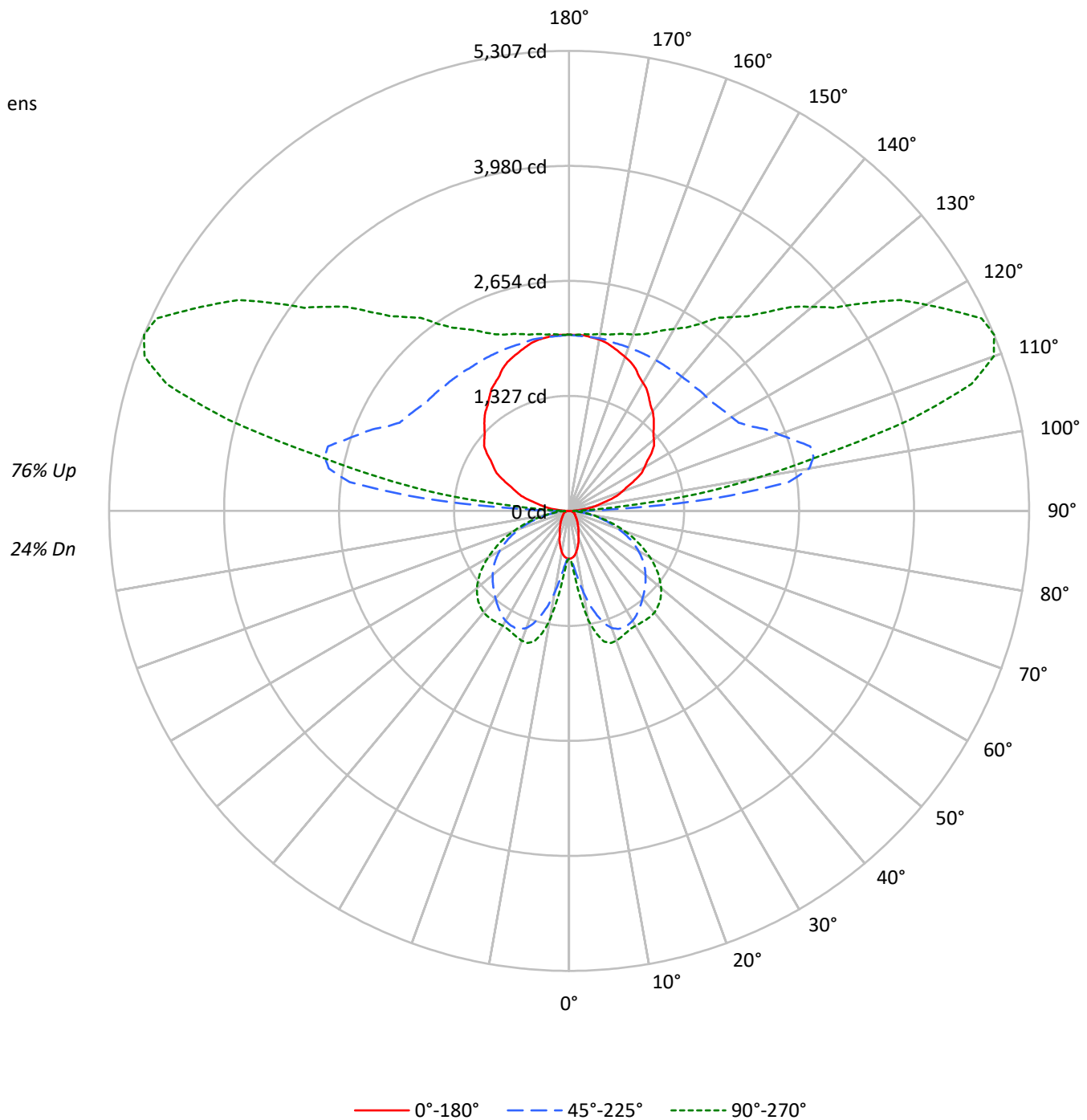
Test Method: LM-79-2019  
Report Number: P937853  
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-12-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17436.9 lumens  
Efficiency: N/A  
Efficacy: 122.1 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 142.8  
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	0
RCR																		
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19	13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5

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

	0°	45°	90°
0°	1700	1700	1700
5°	1661	1965	2285
10°	1508	2865	3788
15°	1282	3745	4574
20°	1044	4341	4662
25°	871	4543	4567
30°	735	4573	4558
35°	650	4499	4677
40°	567	4401	4798
45°	514	4330	4817
50°	472	4266	4737
55°	452	4173	4527
60°	463	3991	4196
65°	483	3715	3740
70°	515	3242	3160
75°	573	2645	2465
80°	633	1837	1662
85°	574	976	850

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 5048 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.1	0.4
10°-20°	315.1	1.8
20°-30°	551.2	3.2
30°-40°	709.5	4.1
40°-50°	792.5	4.5
50°-60°	759.0	4.4
60°-70°	601.5	3.4
70°-80°	353.7	2.0
80°-90°	106.0	0.6
90°-100°	990.8	5.7
100°-110°	2605.0	14.9
110°-120°	2701.1	15.5
120°-130°	2166.6	12.4
130°-140°	1700.0	9.7
140°-150°	1304.8	7.5
150°-160°	939.7	5.4
160°-170°	575.0	3.3
170°-180°	194.2	1.1
0°-30°	937.4	5.4
0°-40°	1646.9	9.4
0°-60°	3198.4	18.3
0°-90°	4259.6	24.4
90°-120°	6296.9	36.1
90°-150°	11468.4	65.8
90°-180°	13177.0	75.6
0°-180°	17436.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	536	574	647	732	758	49
15°	401	740	1248	1513	1560	112
25°	256	840	1486	1552	1554	118
35°	173	802	1400	1479	1538	108
45°	118	640	1237	1417	1481	92
55°	85	406	1050	1219	1253	77
65°	67	216	779	876	889	67
75°	49	132	428	470	472	52
85°	18	41	106	117	118	19
90°	14	38	104	52	52	12
95°	131	513	1707	880	599	145
105°	469	711	2880	4372	4079	498
115°	834	1012	2307	4602	5252	823
125°	1160	1300	2098	3546	4183	1030
135°	1382	1521	2033	2862	3246	1069
145°	1603	1705	2007	2442	2633	1004
155°	1812	1862	2007	2203	2267	832
165°	1955	1981	2007	2086	2112	552
175°	2033	2033	2020	2046	2046	193
180°	2033	2033	2033	2033	2033	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	549.6	549.6	553.2	554.9	558.4	560.2	563.8	567.3	577.9	579.7	583.2
5°	535.5	542.5	565.5	574.3	599.1	632.6	646.8	669.8	717.5	731.6	740.5
7.5°	514.2	530.1	586.7	600.8	662.8	751.1	788.2	837.7	913.7	950.8	980.8
10°	480.7	514.2	615.0	648.6	749.3	883.7	952.5	1021.5	1136.3	1187.6	1207.0
12.5°	443.5	498.3	645.0	691.0	835.9	1032.1	1115.2	1191.2	1321.9	1390.9	1401.4
15°	401.2	475.4	673.3	740.5	927.8	1155.8	1247.7	1341.3	1463.3	1512.8	1525.2
17.5°	364.1	457.7	699.8	770.5	998.5	1267.1	1360.8	1438.6	1537.6	1571.1	1580.0
20°	318.1	429.5	717.5	809.4	1072.8	1348.5	1438.6	1498.6	1565.8	1587.0	1590.5
22.5°	284.6	399.4	728.1	823.6	1122.2	1397.9	1473.9	1521.7	1567.6	1574.6	1576.4
25°	256.3	365.8	726.4	839.5	1164.6	1427.9	1486.3	1521.7	1548.1	1551.7	1551.7
27.5°	229.8	328.7	719.2	843.0	1196.4	1435.1	1481.0	1505.7	1518.1	1525.2	1525.2
30°	206.8	293.4	701.6	835.9	1210.6	1427.9	1465.1	1477.5	1489.8	1500.4	1505.7
32.5°	189.1	259.8	675.1	821.7	1212.3	1410.3	1436.8	1443.8	1461.5	1486.3	1495.1
35°	173.2	226.3	645.0	802.3	1201.8	1382.0	1399.7	1406.8	1442.1	1479.2	1491.5
37.5°	157.3	201.5	606.2	768.8	1185.8	1348.5	1360.8	1373.1	1427.9	1472.1	1486.3
40°	141.4	180.2	560.2	731.6	1161.1	1307.8	1318.4	1337.8	1410.3	1461.5	1475.6
42.5°	129.0	162.6	510.7	692.8	1129.3	1261.9	1277.8	1306.0	1389.0	1443.8	1459.7
45°	118.4	144.9	457.7	639.8	1088.7	1214.1	1237.1	1276.0	1364.4	1417.3	1431.5
47.5°	107.8	132.5	403.0	584.9	1044.5	1166.4	1196.4	1240.6	1330.7	1382.0	1394.4
50°	99.0	120.2	348.2	526.6	996.7	1115.2	1150.5	1196.4	1288.4	1336.1	1352.0
52.5°	91.9	109.6	296.9	468.3	942.0	1062.1	1102.8	1150.5	1237.1	1283.0	1293.6
55°	84.8	100.7	252.7	406.5	885.4	1005.6	1049.7	1095.7	1180.5	1219.4	1226.5
57.5°	81.3	93.6	215.6	348.2	825.3	942.0	991.4	1033.8	1113.3	1143.5	1150.5
60°	76.0	88.4	187.3	298.7	759.9	881.9	924.3	966.7	1033.8	1058.6	1063.9
62.5°	70.7	84.8	166.1	250.9	692.8	811.2	853.6	892.4	949.0	966.7	973.8
65°	67.2	81.3	150.2	215.6	623.9	737.0	779.4	813.0	858.9	876.5	880.1
67.5°	63.6	77.7	137.8	185.6	554.9	662.8	694.6	726.4	761.7	779.4	781.2
70°	58.3	74.2	127.3	164.3	484.2	577.9	604.4	638.0	666.3	675.1	680.4
72.5°	54.8	68.9	120.2	148.4	411.7	496.6	521.4	540.8	565.5	574.3	574.3
75°	49.4	61.8	113.1	132.5	337.5	406.5	427.6	447.1	466.6	470.1	464.8
77.5°	44.2	54.8	97.2	111.4	263.3	321.6	339.3	349.9	365.8	369.3	371.1
80°	37.2	47.7	76.0	86.6	190.9	236.8	249.2	258.0	272.2	272.2	275.7
82.5°	28.3	37.2	54.8	61.8	129.0	162.6	173.2	178.5	187.3	187.3	187.3
85°	17.7	23.0	35.3	40.7	77.7	99.0	106.0	107.8	114.9	116.6	116.6
87.5°	8.9	12.4	23.0	24.8	40.7	51.3	51.3	54.8	54.8	53.0	51.3
90°	13.6	24.5	35.5	38.2	60.0	89.1	103.6	92.1	69.1	51.8	51.8
92.5°	54.5	147.3	240.1	263.3	370.2	512.7	583.9	511.7	367.4	259.2	248.9
95°	131.0	300.7	470.5	512.9	910.8	1441.4	1706.6	1522.9	1155.5	880.0	848.7
97.5°	226.4	376.2	526.0	563.4	1226.9	2111.5	2553.8	2437.7	2205.5	2031.3	1971.9
100°	300.1	436.0	571.8	605.8	1342.0	2323.6	2814.4	2822.9	2839.9	2852.6	2781.8
102.5°	362.9	489.7	616.3	648.0	1394.7	2390.3	2888.1	3036.0	3331.9	3553.9	3493.3
105°	469.3	576.6	683.9	710.8	1433.8	2397.8	2879.9	3211.5	3874.9	4372.4	4339.8
107.5°	578.4	678.5	778.5	803.6	1441.1	2291.2	2716.2	3178.8	4104.0	4798.0	4805.9
110°	652.1	742.4	832.8	855.4	1430.1	2196.5	2579.7	3097.0	4131.4	4907.2	4941.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	724.4	810.5	896.6	918.1	1430.6	2114.0	2455.6	2985.0	4043.6	4837.6	4889.8
115°	833.5	912.9	992.4	1012.2	1443.8	2019.2	2306.9	2816.9	3836.7	4601.6	4673.9
117.5°	941.4	1013.5	1085.7	1103.7	1470.6	1959.9	2204.6	2664.9	3585.2	4275.5	4355.7
120°	1004.1	1072.0	1139.9	1156.9	1492.5	1940.0	2163.7	2584.2	3425.2	4055.9	4133.8
122.5°	1065.5	1134.0	1202.5	1219.6	1523.9	1929.5	2132.3	2511.0	3268.2	3836.2	3913.1
125°	1159.6	1222.1	1284.5	1300.1	1566.2	1920.8	2098.2	2419.8	3063.2	3545.6	3616.4
127.5°	1236.0	1299.1	1362.2	1377.9	1608.4	1915.8	2069.5	2345.7	2898.0	3312.3	3372.1
130°	1277.0	1344.9	1412.7	1429.7	1639.3	1918.9	2058.6	2304.5	2796.2	3165.0	3220.2
132.5°	1319.2	1387.1	1455.1	1472.0	1664.4	1920.8	2049.1	2269.2	2709.4	3039.5	3089.0
135°	1382.0	1443.8	1505.7	1521.1	1691.7	1919.1	2032.7	2217.1	2585.7	2862.2	2904.8
137.5°	1446.1	1507.3	1568.6	1583.8	1732.5	1930.9	2030.0	2185.8	2497.4	2731.2	2766.0
140°	1499.3	1555.6	1612.0	1626.2	1757.6	1932.8	2020.4	2155.0	2424.2	2626.1	2658.7
142.5°	1540.2	1592.4	1644.5	1657.5	1778.5	1939.8	2020.4	2138.7	2375.2	2552.5	2580.5
145°	1603.0	1648.5	1694.0	1705.3	1805.8	1939.8	2006.8	2103.5	2296.9	2441.9	2463.2
147.5°	1665.7	1710.0	1754.2	1765.3	1845.8	1953.2	2006.8	2082.9	2235.1	2349.2	2366.8
150°	1706.6	1746.7	1786.7	1796.7	1866.7	1960.1	2006.8	2071.1	2199.6	2296.0	2310.2
152.5°	1749.0	1779.3	1809.7	1817.2	1880.4	1964.7	2006.8	2061.7	2171.4	2253.7	2264.5
155°	1811.7	1834.2	1856.6	1862.2	1910.4	1974.7	2006.8	2050.5	2137.8	2203.2	2210.3
157.5°	1858.1	1879.9	1901.8	1907.2	1940.4	1984.7	2006.8	2040.7	2108.6	2159.6	2164.6
160°	1889.5	1906.4	1923.5	1927.7	1954.0	1989.3	2006.8	2035.9	2094.1	2137.8	2140.7
162.5°	1920.8	1933.6	1946.3	1949.5	1968.6	1994.1	2006.8	2031.4	2080.5	2117.3	2120.0
165°	1954.9	1966.4	1977.9	1980.8	1989.5	2001.0	2006.8	2024.4	2059.5	2085.9	2088.8
167.5°	1986.4	1991.8	1997.3	1998.6	2005.9	2015.6	2020.4	2031.9	2055.0	2072.3	2073.5
170°	2006.8	2012.3	2017.7	2019.0	2019.5	2020.1	2020.4	2031.9	2055.0	2072.3	2072.3
172.5°	2017.7	2019.0	2020.2	2020.4	2020.4	2020.4	2020.4	2029.6	2047.8	2061.4	2060.3
175°	2032.7	2032.7	2032.7	2032.7	2028.6	2023.2	2020.4	2026.2	2037.7	2046.4	2046.4
177.5°	2032.7	2032.7	2032.7	2032.7	2029.6	2025.3	2023.2	2027.7	2036.8	2043.6	2042.4
180°	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	549.6	549.6
2.5°	586.7	583.2
5°	754.6	758.1
7.5°	1016.2	1014.4
10°	1263.6	1279.5
12.5°	1443.8	1447.4
15°	1553.5	1560.5
17.5°	1595.9	1597.6
20°	1597.6	1594.1
22.5°	1578.1	1574.6
25°	1555.2	1553.5
27.5°	1534.0	1535.8
30°	1525.2	1530.4
32.5°	1525.2	1534.0
35°	1528.7	1537.6
37.5°	1526.9	1537.6
40°	1519.8	1532.2
42.5°	1500.4	1509.3
45°	1470.4	1481.0
47.5°	1431.5	1438.6
50°	1382.0	1389.0
52.5°	1320.2	1321.9
55°	1246.0	1253.0
57.5°	1166.4	1168.1
60°	1078.0	1083.3
62.5°	984.4	984.4
65°	885.4	888.9
67.5°	782.9	791.7
70°	678.7	680.4
72.5°	576.2	576.2
75°	470.1	471.8
77.5°	369.3	369.3
80°	273.9	275.7
82.5°	189.1	192.6
85°	118.4	118.4
87.5°	54.8	49.4
90°	51.8	51.8
92.5°	207.6	166.4
95°	723.8	598.9
97.5°	1734.2	1496.5
100°	2498.7	2215.5
102.5°	3250.7	3008.2
105°	4209.4	4079.1
107.5°	4837.4	4868.9
110°	5076.9	5212.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5098.3	5306.9
115°	4963.1	5252.3
117.5°	4676.4	4997.2
120°	4445.4	4757.1
122.5°	4220.5	4527.9
125°	3899.6	4182.7
127.5°	3611.0	3849.9
130°	3440.9	3661.6
132.5°	3286.6	3484.2
135°	3075.1	3245.5
137.5°	2905.5	3045.0
140°	2789.1	2919.5
142.5°	2692.7	2804.9
145°	2548.0	2633.0
147.5°	2437.1	2507.5
150°	2367.3	2424.3
152.5°	2307.6	2350.6
155°	2238.9	2267.3
157.5°	2184.6	2204.6
160°	2152.2	2163.7
162.5°	2130.9	2141.8
165°	2100.3	2111.9
167.5°	2078.3	2083.2
170°	2072.3	2072.3
172.5°	2056.0	2051.8
175°	2046.4	2046.4
177.5°	2037.6	2032.7
180°	2032.7	2032.7



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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	0.00	0.53	0.98	1.66	3.26	13.03	13.72	14.18	14.86	16.45
	3H	0.53	1.15	1.68	2.29	3.90	14.86	15.48	16.02	16.62	18.23
	4H	0.82	1.41	1.98	2.55	4.16	15.50	16.09	16.67	17.23	18.85
	6H	1.06	1.60	2.23	2.75	4.37	15.93	16.47	17.10	17.61	19.24
	8H	1.12	1.64	2.30	2.80	4.42	16.05	16.56	17.22	17.72	19.34
	12H	1.14	1.62	2.31	2.78	4.42	16.11	16.60	17.29	17.75	19.39
4H	2H	7.04	7.63	8.21	8.77	10.39	13.28	13.87	14.45	15.01	16.63
	3H	8.59	9.08	9.77	10.25	11.88	15.32	15.81	16.49	16.98	18.60
	4H	8.68	9.13	9.85	10.29	11.93	16.08	16.53	17.26	17.69	19.33
	6H	8.68	9.06	9.86	10.25	11.88	16.61	17.00	17.79	18.18	19.81
	8H	8.65	9.01	9.83	10.18	11.83	16.77	17.13	17.95	18.31	19.96
	12H	8.60	8.93	9.79	10.11	11.76	16.86	17.19	18.06	18.37	20.03
8H	4H	10.11	10.47	11.29	11.64	13.30	16.13	16.49	17.31	17.66	19.31
	6H	10.34	10.64	11.54	11.86	13.51	16.75	17.05	17.95	18.26	19.91
	8H	10.36	10.62	11.57	11.81	13.48	16.97	17.23	18.18	18.42	20.09
	12H	10.32	10.55	11.53	11.74	13.44	17.11	17.34	18.32	18.53	20.23
12H	4H	10.25	10.57	11.44	11.76	13.41	16.07	16.40	17.27	17.58	19.24
	6H	10.60	10.86	11.81	12.05	13.72	16.73	16.99	17.94	18.18	19.85
	8H	10.66	10.89	11.87	12.08	13.78	16.96	17.18	18.16	18.37	20.07