

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: P937647

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

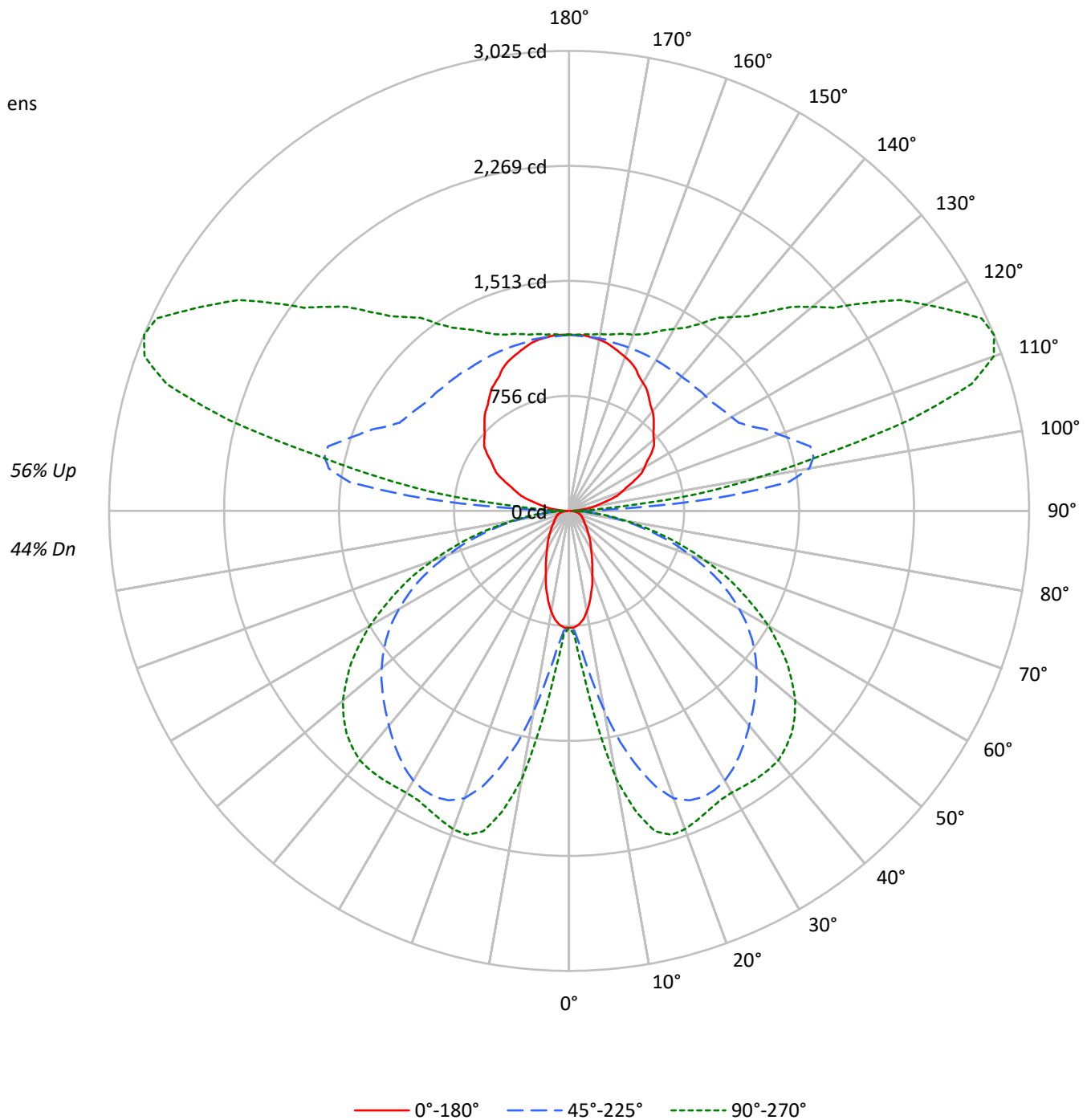
Test Method: LM-79-2019  
Report Number: P937647  
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13457.9 lumens  
Efficiency: N/A  
Efficacy: 116.0 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: General Diffuse  
  
Input Watts (W): 116  
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

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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42				36	
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34				30	
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29				24	
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24				20	
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21				17	
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18				15	
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16				13	
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14				11	
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12				10	
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11				9	

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

	0°	45°	90°
0°	3564	3564	3564
5°	3482	4119	4791
10°	3158	6005	7943
15°	2684	7845	9590
20°	2185	9091	9774
25°	1823	9514	9575
30°	1537	9574	9558
35°	1359	9415	9804
40°	1184	9208	10060
45°	1073	9057	10100
50°	984	8921	9932
55°	942	8721	9492
60°	965	8339	8797
65°	1003	7756	7842
70°	1069	6764	6625
75°	1185	5514	5170
80°	1295	3825	3484
85°	1150	2029	1783

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10100 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.4	0.7
10°-20°	440.4	3.3
20°-30°	770.4	5.7
30°-40°	991.7	7.4
40°-50°	1107.7	8.2
50°-60°	1060.9	7.9
60°-70°	840.8	6.2
70°-80°	494.4	3.7
80°-90°	141.8	1.1
90°-100°	564.8	4.2
100°-110°	1484.7	11.0
110°-120°	1539.5	11.4
120°-130°	1234.9	9.2
130°-140°	968.9	7.2
140°-150°	743.7	5.5
150°-160°	535.6	4.0
160°-170°	327.7	2.4
170°-180°	110.7	0.8
0°-30°	1310.1	9.7
0°-40°	2301.8	17.1
0°-60°	4470.4	33.2
0°-90°	5947.3	44.2
90°-120°	3589.0	26.7
90°-150°	6536.6	48.6
90°-180°	7511.0	55.8
0°-180°	13457.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	803	904	1023	1060	69
15°	561	1035	1744	2114	2181	156
25°	358	1173	2077	2169	2171	165
35°	242	1122	1956	2068	2149	151
45°	166	894	1729	1981	2070	128
55°	118	568	1467	1704	1751	108
65°	94	301	1089	1225	1242	93
75°	69	185	598	657	660	72
85°	25	57	148	163	166	26
90°	8	22	59	30	30	8
95°	75	292	973	502	341	83
105°	268	405	1641	2492	2325	284
115°	475	577	1315	2623	2994	469
125°	661	741	1196	2021	2384	587
135°	788	867	1159	1631	1850	609
145°	914	972	1144	1392	1501	572
155°	1033	1061	1144	1256	1292	474
165°	1114	1129	1144	1189	1204	314
175°	1159	1159	1152	1166	1166	110
180°	1159	1159	1159	1159	1159	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2	768.2
2.5°	768.2	768.2	773.2	775.6	780.6	783.0	788.0	792.9	807.8	810.2	815.2
5°	748.4	758.3	790.5	802.8	837.4	884.3	904.0	936.2	1002.8	1022.7	1035.0
7.5°	718.8	741.0	820.1	839.8	926.3	1049.8	1101.6	1170.8	1277.1	1329.0	1370.9
10°	671.9	718.8	859.6	906.6	1047.3	1235.0	1331.4	1427.8	1588.3	1659.9	1687.1
12.5°	620.0	696.5	901.6	965.8	1168.4	1442.5	1558.6	1664.9	1847.6	1944.0	1958.8
15°	560.7	664.5	941.2	1035.0	1296.8	1615.5	1743.9	1874.8	2045.2	2114.4	2131.7
17.5°	508.9	639.8	978.2	1077.0	1395.6	1771.1	1902.0	2010.6	2149.0	2195.9	2208.3
20°	444.6	600.3	1002.8	1131.3	1499.4	1884.7	2010.6	2094.7	2188.5	2218.2	2223.1
22.5°	397.7	558.2	1017.7	1151.1	1568.5	1953.9	2060.1	2126.7	2191.0	2200.9	2203.4
25°	358.2	511.3	1015.2	1173.3	1627.8	1995.9	2077.4	2126.7	2163.8	2168.8	2168.8
27.5°	321.1	459.4	1005.4	1178.3	1672.3	2005.8	2070.0	2104.6	2121.9	2131.7	2131.7
30°	289.0	410.1	980.6	1168.4	1692.0	1995.9	2047.8	2065.0	2082.3	2097.1	2104.6
32.5°	264.3	363.1	943.6	1148.6	1694.5	1971.2	2008.2	2018.1	2042.8	2077.4	2089.7
35°	242.1	316.2	901.6	1121.5	1679.7	1931.7	1956.3	1966.2	2015.6	2067.5	2084.8
37.5°	219.8	281.6	847.2	1074.5	1657.4	1884.7	1902.0	1919.3	1995.9	2057.6	2077.4
40°	197.6	252.0	783.0	1022.7	1622.8	1827.9	1842.7	1869.9	1971.2	2042.8	2062.5
42.5°	180.3	227.2	713.8	968.3	1578.4	1763.7	1785.9	1825.4	1941.5	2018.1	2040.4
45°	165.5	202.6	639.8	894.1	1521.6	1697.0	1729.1	1783.4	1906.9	1981.0	2000.8
47.5°	150.7	185.3	563.2	817.6	1459.8	1630.3	1672.3	1734.1	1860.0	1931.7	1949.0
50°	138.3	168.0	486.6	736.1	1393.2	1558.6	1608.1	1672.3	1800.7	1867.4	1889.6
52.5°	128.4	153.1	415.0	654.6	1316.5	1484.5	1541.3	1608.1	1729.1	1793.3	1808.1
55°	118.5	140.8	353.2	568.1	1237.6	1405.5	1467.2	1531.5	1650.0	1704.3	1714.3
57.5°	113.7	131.0	301.3	486.6	1153.5	1316.5	1385.7	1445.1	1556.2	1598.2	1608.1
60°	106.2	123.5	261.8	417.4	1062.2	1232.6	1291.9	1351.1	1445.1	1479.6	1487.0
62.5°	98.8	118.5	232.2	350.8	968.3	1133.8	1193.1	1247.5	1326.4	1351.1	1361.0
65°	93.8	113.7	209.9	301.3	872.0	1030.0	1089.3	1136.2	1200.4	1225.2	1230.2
67.5°	88.9	108.7	192.6	259.4	775.6	926.3	970.8	1015.2	1064.6	1089.3	1091.8
70°	81.5	103.8	177.9	229.8	676.8	807.8	844.8	891.7	931.2	943.6	951.0
72.5°	76.6	96.4	168.0	207.5	575.5	694.1	728.7	755.9	790.5	802.8	802.8
75°	69.2	86.5	158.1	185.3	471.8	568.1	597.7	624.9	652.1	657.1	649.6
77.5°	61.8	76.6	135.8	155.6	368.1	449.6	474.3	489.0	511.3	516.2	518.8
80°	51.9	66.7	106.2	121.0	266.8	331.0	348.3	360.6	380.4	380.4	385.4
82.5°	39.5	51.9	76.6	86.5	180.3	227.2	242.1	249.5	261.8	261.8	261.8
85°	24.7	32.2	49.4	56.8	108.7	138.3	148.2	150.7	160.6	163.0	163.0
87.5°	12.3	17.3	32.2	34.6	56.8	71.6	71.6	76.6	76.6	74.1	71.6
90°	7.8	14.0	20.2	21.8	34.2	50.8	59.1	52.5	39.4	29.5	29.5
92.5°	31.1	84.0	136.9	150.1	211.0	292.2	332.8	291.6	209.5	147.8	141.9
95°	74.7	171.4	268.2	292.4	519.1	821.5	972.7	868.1	658.6	501.6	483.8
97.5°	129.1	214.4	299.9	321.2	699.3	1203.5	1455.6	1389.4	1257.1	1157.8	1124.0
100°	171.1	248.4	325.9	345.3	764.9	1324.4	1604.1	1609.0	1618.6	1625.9	1585.5
102.5°	206.9	279.0	351.3	369.3	794.9	1362.3	1646.1	1730.4	1899.1	2025.6	1991.0
105°	267.5	328.6	389.8	405.1	817.2	1366.7	1641.4	1830.4	2208.5	2492.1	2473.5
107.5°	329.7	386.7	443.7	458.0	821.4	1305.9	1548.2	1811.8	2339.2	2734.7	2739.2
110°	371.6	423.1	474.6	487.5	815.2	1251.9	1470.4	1765.2	2354.7	2796.9	2816.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	412.9	461.9	511.1	523.3	815.4	1204.9	1399.6	1701.4	2304.7	2757.3	2787.0
115°	475.1	520.4	565.7	577.0	822.9	1150.9	1314.9	1605.5	2186.8	2622.8	2664.0
117.5°	536.5	577.6	618.8	629.1	838.2	1117.1	1256.5	1518.8	2043.5	2436.9	2482.6
120°	572.3	611.0	649.7	659.3	850.7	1105.8	1233.3	1472.9	1952.2	2311.7	2356.1
122.5°	607.3	646.3	685.4	695.1	868.5	1099.7	1215.3	1431.1	1862.8	2186.6	2230.4
125°	660.9	696.5	732.2	741.0	892.6	1094.8	1195.9	1379.3	1745.9	2020.9	2061.3
127.5°	704.5	740.4	776.4	785.3	916.8	1092.0	1179.6	1337.0	1651.8	1887.9	1921.9
130°	727.8	766.5	805.2	814.9	934.3	1093.7	1173.3	1313.4	1593.8	1804.0	1835.4
132.5°	751.9	790.6	829.3	839.0	948.6	1094.8	1167.9	1293.4	1544.2	1732.4	1760.5
135°	787.7	822.9	858.2	867.0	964.2	1093.8	1158.6	1263.6	1473.8	1631.3	1655.6
137.5°	824.2	859.1	894.0	902.7	987.5	1100.5	1157.0	1245.8	1423.5	1556.7	1576.6
140°	854.5	886.7	918.8	926.9	1001.7	1101.6	1151.6	1228.3	1381.8	1496.8	1515.4
142.5°	877.9	907.6	937.3	944.7	1013.7	1105.6	1151.6	1219.0	1353.7	1454.9	1470.9
145°	913.7	939.6	965.6	972.0	1029.3	1105.7	1143.8	1198.9	1309.1	1391.9	1403.9
147.5°	949.4	974.6	999.9	1006.2	1052.1	1113.2	1143.8	1187.2	1273.9	1339.0	1349.0
150°	972.7	995.6	1018.4	1024.1	1064.0	1117.2	1143.8	1180.4	1253.7	1308.7	1316.8
152.5°	996.9	1014.2	1031.4	1035.7	1071.7	1119.8	1143.8	1175.1	1237.6	1284.6	1290.7
155°	1032.6	1045.4	1058.2	1061.4	1088.8	1125.5	1143.8	1168.7	1218.5	1255.8	1259.8
157.5°	1059.0	1071.5	1084.0	1087.1	1105.9	1131.2	1143.8	1163.1	1201.8	1230.9	1233.7
160°	1077.0	1086.7	1096.3	1098.7	1113.8	1133.8	1143.8	1160.4	1193.6	1218.5	1220.2
162.5°	1094.8	1102.1	1109.4	1111.2	1122.0	1136.5	1143.8	1157.8	1185.8	1206.8	1208.4
165°	1114.3	1120.8	1127.3	1129.0	1134.0	1140.5	1143.8	1153.8	1173.9	1188.9	1190.6
167.5°	1132.1	1135.2	1138.4	1139.1	1143.2	1148.8	1151.6	1158.1	1171.3	1181.1	1181.7
170°	1143.8	1146.9	1150.1	1150.8	1151.1	1151.4	1151.6	1158.1	1171.3	1181.1	1181.1
172.5°	1150.1	1150.7	1151.4	1151.6	1151.6	1151.6	1151.6	1156.8	1167.2	1174.9	1174.4
175°	1158.6	1158.6	1158.6	1158.6	1156.2	1153.1	1151.6	1154.8	1161.4	1166.3	1166.3
177.5°	1158.6	1158.6	1158.6	1158.6	1156.8	1154.4	1153.1	1155.8	1160.9	1164.8	1164.2
180°	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6	1158.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	768.2	768.2
2.5°	820.1	815.2
5°	1054.7	1059.7
7.5°	1420.3	1417.9
10°	1766.1	1788.4
12.5°	2018.1	2023.1
15°	2171.2	2181.1
17.5°	2230.5	2233.0
20°	2233.0	2228.1
22.5°	2205.8	2200.9
25°	2173.8	2171.2
27.5°	2144.0	2146.6
30°	2131.7	2139.2
32.5°	2131.7	2144.0
35°	2136.6	2149.0
37.5°	2134.2	2149.0
40°	2124.3	2141.6
42.5°	2097.1	2109.4
45°	2055.1	2070.0
47.5°	2000.8	2010.6
50°	1931.7	1941.5
52.5°	1845.2	1847.6
55°	1741.5	1751.4
57.5°	1630.3	1632.7
60°	1506.7	1514.2
62.5°	1375.9	1375.9
65°	1237.6	1242.5
67.5°	1094.3	1106.6
70°	948.5	951.0
72.5°	805.2	805.2
75°	657.1	659.5
77.5°	516.2	516.2
80°	382.9	385.4
82.5°	264.3	269.3
85°	165.5	165.5
87.5°	76.6	69.2
90°	29.5	29.5
92.5°	118.4	94.9
95°	412.6	341.4
97.5°	988.5	853.0
100°	1424.2	1262.8
102.5°	1852.8	1714.5
105°	2399.2	2324.9
107.5°	2757.2	2775.1
110°	2893.7	2971.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2905.8	3024.7
115°	2828.8	2993.7
117.5°	2665.4	2848.2
120°	2533.8	2711.4
122.5°	2405.6	2580.7
125°	2222.6	2384.1
127.5°	2058.1	2194.3
130°	1961.2	2087.0
132.5°	1873.2	1985.9
135°	1752.8	1849.9
137.5°	1656.0	1735.6
140°	1589.7	1664.0
142.5°	1534.8	1598.7
145°	1452.3	1500.7
147.5°	1389.1	1429.2
150°	1349.2	1381.8
152.5°	1315.2	1339.7
155°	1276.1	1292.3
157.5°	1245.1	1256.5
160°	1226.7	1233.3
162.5°	1214.6	1220.8
165°	1197.2	1203.7
167.5°	1184.6	1187.4
170°	1181.1	1181.1
172.5°	1171.9	1169.5
175°	1166.3	1166.3
177.5°	1161.4	1158.6
180°	1158.6	1158.6



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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	4.87	5.71	5.86	6.72	8.07	18.05	18.89	19.04	19.90	21.25
	3H	5.57	6.33	6.58	7.35	8.72	19.88	20.64	20.89	21.66	23.03
	4H	5.87	6.59	6.89	7.61	8.99	20.53	21.25	21.55	22.27	23.65
	6H	6.12	6.78	7.15	7.81	9.20	20.96	21.62	21.99	22.65	24.04
	8H	6.19	6.82	7.22	7.86	9.25	21.08	21.71	22.11	22.76	24.14
	12H	6.20	6.80	7.25	7.84	9.25	21.15	21.75	22.19	22.79	24.20
4H	2H	12.08	12.80	13.11	13.82	15.20	18.32	19.04	19.34	20.06	21.44
	3H	13.65	14.25	14.68	15.30	16.69	20.36	20.96	21.40	22.02	23.41
	4H	13.74	14.29	14.78	15.34	16.75	21.13	21.68	22.17	22.73	24.14
	6H	13.75	14.22	14.80	15.29	16.70	21.67	22.14	22.72	23.21	24.62
	8H	13.73	14.17	14.78	15.23	16.66	21.83	22.27	22.88	23.33	24.76
	12H	13.68	14.08	14.75	15.16	16.59	21.92	22.32	22.99	23.40	24.83
8H	4H	15.18	15.63	16.24	16.69	18.11	21.19	21.63	22.24	22.69	24.12
	6H	15.42	15.79	16.50	16.90	18.32	21.81	22.18	22.89	23.29	24.71
	8H	15.44	15.77	16.53	16.85	18.29	22.03	22.36	23.12	23.45	24.89
	12H	15.41	15.69	16.50	16.78	18.26	22.18	22.46	23.27	23.55	25.03
12H	4H	15.33	15.73	16.40	16.80	18.23	21.14	21.54	22.21	22.62	24.05
	6H	15.68	16.01	16.77	17.09	18.53	21.80	22.12	22.88	23.21	24.65
	8H	15.75	16.04	16.84	17.12	18.60	22.03	22.31	23.12	23.39	24.87