

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: P938466

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938466  
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

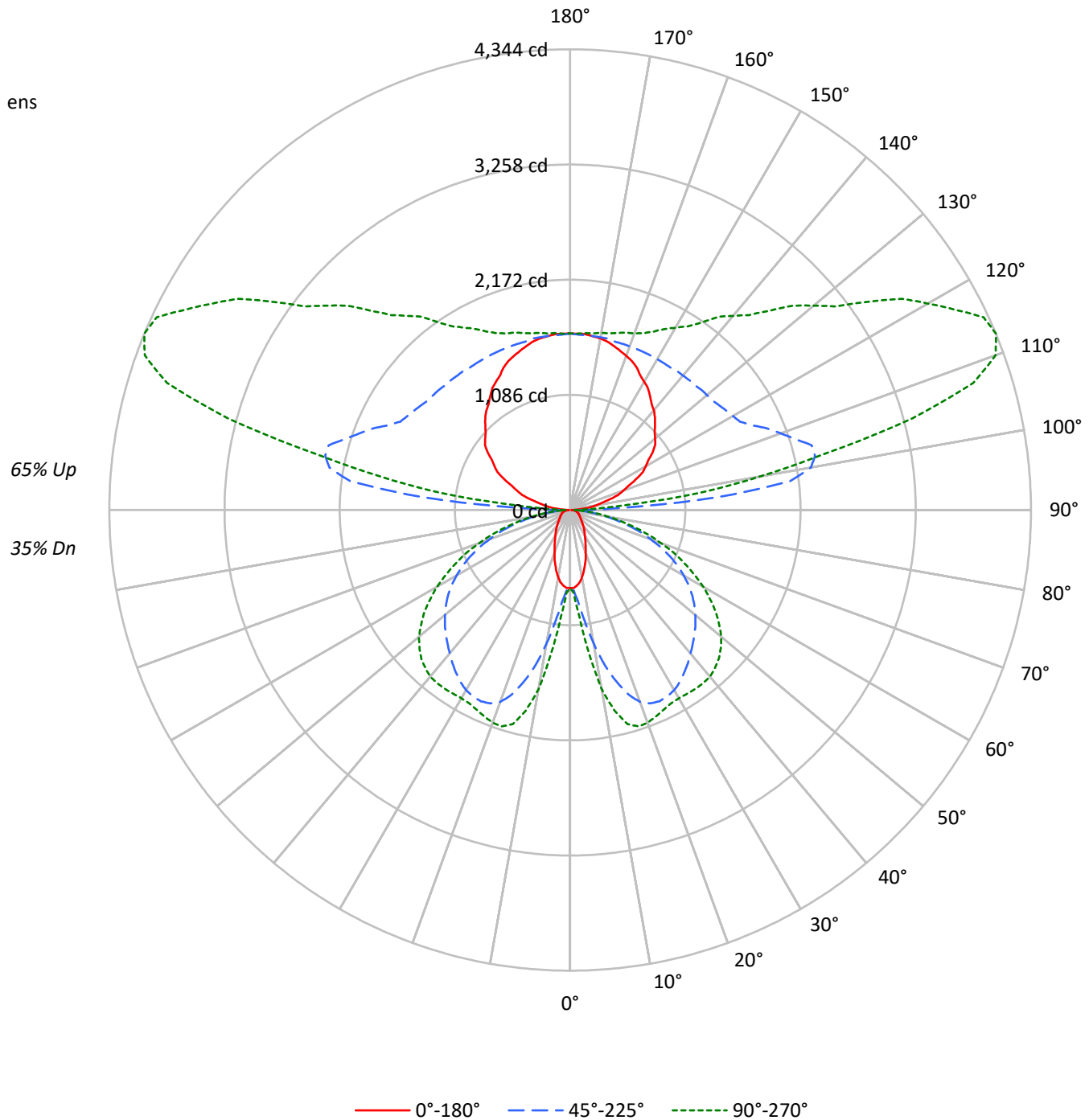
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16486.3 lumens  
Efficiency: N/A  
Efficacy: 113.9 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): 144.8  
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	50	30	10
RCR																				
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35		
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28		
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23		
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19		
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16		
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14		
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12		
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10		
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9		
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8		
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7		

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

	0°	45°	90°
0°	3414	3414	3414
5°	3335	3946	4589
10°	3025	5752	7608
15°	2571	7515	9186
20°	2093	8708	9362
25°	1746	9113	9172
30°	1472	9170	9155
35°	1302	9018	9391
40°	1135	8820	9636
45°	1028	8675	9674
50°	942	8545	9514
55°	902	8354	9092
60°	924	7987	8426
65°	961	7429	7511
70°	1024	6479	6345
75°	1136	5283	4952
80°	1240	3664	3337
85°	1099	1944	1709

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.2	0.6
10°-20°	421.9	2.6
20°-30°	737.9	4.5
30°-40°	949.9	5.8
40°-50°	1061.0	6.4
50°-60°	1016.2	6.2
60°-70°	805.3	4.9
70°-80°	473.6	2.9
80°-90°	137.9	0.8
90°-100°	811.2	4.9
100°-110°	2132.6	12.9
110°-120°	2211.2	13.4
120°-130°	1773.7	10.8
130°-140°	1391.7	8.4
140°-150°	1068.2	6.5
150°-160°	769.3	4.7
160°-170°	470.7	2.9
170°-180°	159.0	1.0
0°-30°	1254.9	7.6
0°-40°	2204.8	13.4
0°-60°	4282.0	26.0
0°-90°	5698.8	34.6
90°-120°	5155.0	31.3
90°-150°	9388.5	56.9
90°-180°	10788.0	65.4
0°-180°	16486.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	717	769	866	980	1015	66
15°	537	991	1670	2025	2089	149
25°	343	1124	1990	2077	2080	158
35°	232	1074	1874	1980	2058	145
45°	159	856	1656	1898	1983	123
55°	114	544	1405	1632	1678	103
65°	90	289	1043	1174	1190	89
75°	66	178	573	629	632	69
85°	24	54	142	156	159	25
90°	11	31	85	42	42	11
95°	107	420	1397	720	490	119
105°	384	582	2358	3580	3339	407
115°	682	829	1889	3767	4300	674
125°	949	1064	1718	2903	3424	843
135°	1131	1245	1664	2343	2657	875
145°	1312	1396	1643	1999	2156	822
155°	1483	1524	1643	1804	1856	681
165°	1600	1622	1643	1708	1729	452
175°	1664	1664	1654	1675	1675	158
180°	1664	1664	1664	1664	1664	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9
2.5°	735.9	735.9	740.6	742.9	747.7	750.0	754.7	759.5	773.7	776.1	780.8
5°	716.9	726.4	757.2	769.0	802.1	847.1	865.9	896.7	960.6	979.6	991.4
7.5°	688.5	709.8	785.5	804.4	887.3	1005.5	1055.2	1121.5	1223.3	1273.0	1313.2
10°	643.6	688.5	823.4	868.4	1003.2	1183.0	1275.3	1367.6	1521.3	1590.0	1615.9
12.5°	593.9	667.2	863.6	925.1	1119.1	1381.7	1492.9	1594.7	1769.8	1862.1	1876.2
15°	537.1	636.5	901.5	991.4	1242.2	1547.4	1670.4	1795.8	1959.0	2025.3	2041.8
17.5°	487.4	612.8	936.9	1031.6	1336.8	1696.4	1821.9	1925.9	2058.4	2103.4	2115.3
20°	425.9	575.0	960.6	1083.6	1436.2	1805.3	1925.9	2006.4	2096.3	2124.7	2129.4
22.5°	381.0	534.7	974.8	1102.6	1502.4	1871.6	1973.3	2037.1	2098.7	2108.1	2110.5
25°	343.1	489.7	972.4	1123.9	1559.2	1911.8	1989.8	2037.1	2072.6	2077.4	2077.4
27.5°	307.5	440.0	963.0	1128.6	1601.8	1921.3	1982.8	2015.9	2032.4	2041.8	2041.8
30°	276.8	392.8	939.3	1119.1	1620.7	1911.8	1961.4	1978.0	1994.6	2008.7	2015.9
32.5°	253.2	347.8	903.8	1100.2	1623.1	1888.1	1923.6	1933.1	1956.7	1989.8	2001.6
35°	231.9	302.9	863.6	1074.2	1608.9	1850.3	1873.9	1883.4	1930.7	1980.3	1996.9
37.5°	210.6	269.8	811.5	1029.3	1587.6	1805.3	1821.9	1838.4	1911.8	1970.9	1989.8
40°	189.3	241.4	750.0	979.6	1554.4	1750.9	1765.0	1791.1	1888.1	1956.7	1975.6
42.5°	172.7	217.7	683.7	927.5	1511.9	1689.4	1710.7	1748.5	1859.7	1933.1	1954.4
45°	158.6	194.0	612.8	856.5	1457.5	1625.4	1656.2	1708.3	1826.5	1897.5	1916.5
47.5°	144.3	177.5	539.4	783.1	1398.3	1561.6	1601.8	1661.0	1781.6	1850.3	1866.8
50°	132.5	160.9	466.1	705.1	1334.5	1492.9	1540.3	1601.8	1724.8	1788.7	1810.0
52.5°	123.0	146.7	397.5	627.0	1261.0	1421.9	1476.4	1540.3	1656.2	1717.7	1731.9
55°	113.5	134.8	338.3	544.2	1185.4	1346.3	1405.4	1467.0	1580.5	1632.5	1642.0
57.5°	108.9	125.4	288.6	466.1	1104.9	1261.0	1327.3	1384.2	1490.6	1530.8	1540.3
60°	101.7	118.3	250.8	399.8	1017.4	1180.6	1237.4	1294.2	1384.2	1417.3	1424.4
62.5°	94.6	113.5	222.4	336.0	927.5	1086.0	1142.8	1194.9	1270.5	1294.2	1303.7
65°	89.9	108.9	201.1	288.6	835.2	986.6	1043.4	1088.3	1149.8	1173.6	1178.3
67.5°	85.1	104.1	184.5	248.4	742.9	887.3	929.9	972.4	1019.8	1043.4	1045.8
70°	78.1	99.4	170.4	220.1	648.3	773.7	809.2	854.1	892.0	903.8	910.9
72.5°	73.3	92.3	160.9	198.8	551.2	664.9	698.0	724.0	757.2	769.0	769.0
75°	66.3	82.8	151.4	177.5	452.0	544.2	572.6	598.6	624.7	629.4	622.2
77.5°	59.2	73.3	130.1	149.1	352.6	430.6	454.3	468.4	489.7	494.5	496.9
80°	49.7	63.9	101.7	115.9	255.5	317.0	333.6	345.4	364.4	364.4	369.1
82.5°	37.9	49.7	73.3	82.8	172.7	217.7	231.9	239.0	250.8	250.8	250.8
85°	23.6	30.8	47.4	54.4	104.1	132.5	142.0	144.3	153.8	156.1	156.1
87.5°	11.8	16.6	30.8	33.1	54.4	68.6	68.6	73.3	73.3	71.0	68.6
90°	11.2	20.1	29.0	31.2	49.2	73.0	84.9	75.5	56.6	42.4	42.4
92.5°	44.7	120.6	196.6	215.6	303.1	419.7	478.0	418.9	300.8	212.2	203.8
95°	107.3	246.2	385.2	419.9	745.6	1179.9	1397.1	1246.7	946.0	720.4	694.8
97.5°	185.4	308.0	430.6	461.3	1004.5	1728.7	2090.7	1995.7	1805.6	1663.0	1614.3
100°	245.7	356.9	468.1	495.9	1098.6	1902.2	2304.0	2311.0	2324.9	2335.2	2277.3
102.5°	297.1	400.8	504.5	530.5	1141.8	1956.8	2364.3	2485.5	2727.7	2909.3	2859.7
105°	384.2	472.0	559.9	581.9	1173.8	1963.0	2357.6	2629.2	3172.2	3579.5	3552.8
107.5°	473.5	555.5	637.3	657.8	1179.8	1875.7	2223.6	2602.3	3359.8	3927.9	3934.4
110°	533.9	607.8	681.8	700.2	1170.8	1798.2	2112.0	2535.3	3382.1	4017.3	4045.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	593.1	663.5	734.0	751.6	1171.2	1730.5	2010.2	2443.6	3310.2	3960.2	4002.9
115°	682.4	747.4	812.4	828.7	1182.0	1653.0	1888.6	2306.0	3140.8	3767.0	3826.2
117.5°	770.6	829.7	888.8	903.5	1203.9	1604.5	1804.8	2181.5	2935.0	3500.1	3565.8
120°	822.0	877.6	933.2	947.1	1221.8	1588.1	1771.3	2115.5	2804.0	3320.4	3384.1
122.5°	872.2	928.3	984.4	998.5	1247.5	1579.6	1745.6	2055.5	2675.6	3140.5	3203.4
125°	949.3	1000.4	1051.5	1064.3	1282.1	1572.4	1717.7	1981.0	2507.6	2902.6	2960.5
127.5°	1011.9	1063.5	1115.1	1128.0	1316.7	1568.4	1694.2	1920.3	2372.5	2711.6	2760.5
130°	1045.4	1101.0	1156.6	1170.4	1342.1	1570.8	1685.2	1886.5	2289.1	2591.0	2636.2
132.5°	1080.0	1135.6	1191.2	1205.1	1362.6	1572.5	1677.5	1857.6	2218.0	2488.3	2528.7
135°	1131.3	1182.0	1232.7	1245.3	1384.9	1571.0	1664.0	1815.0	2116.8	2343.1	2377.9
137.5°	1183.9	1234.0	1284.1	1296.6	1418.4	1580.7	1661.9	1789.5	2044.5	2235.9	2264.4
140°	1227.4	1273.6	1319.7	1331.2	1438.9	1582.3	1654.0	1764.2	1984.6	2149.9	2176.6
142.5°	1260.9	1303.6	1346.3	1356.9	1456.0	1588.0	1654.0	1750.8	1944.3	2089.6	2112.5
145°	1312.3	1349.5	1386.7	1396.1	1478.3	1588.0	1642.8	1722.0	1880.3	1999.1	2016.5
147.5°	1363.6	1399.9	1436.2	1445.2	1511.1	1598.9	1642.8	1705.1	1829.7	1923.1	1937.5
150°	1397.1	1429.9	1462.7	1470.8	1528.1	1604.6	1642.8	1695.5	1800.7	1879.6	1891.3
152.5°	1431.8	1456.6	1481.5	1487.7	1539.4	1608.3	1642.8	1687.8	1777.6	1845.0	1853.7
155°	1483.2	1501.5	1519.9	1524.4	1563.9	1616.5	1642.8	1678.5	1750.1	1803.7	1809.5
157.5°	1521.1	1539.0	1556.9	1561.3	1588.5	1624.7	1642.8	1670.7	1726.3	1768.0	1772.1
160°	1546.8	1560.7	1574.6	1578.1	1599.7	1628.4	1642.8	1666.6	1714.3	1750.1	1752.4
162.5°	1572.5	1582.9	1593.4	1596.0	1611.6	1632.4	1642.8	1663.0	1703.2	1733.3	1735.6
165°	1600.4	1609.8	1619.3	1621.6	1628.7	1638.1	1642.8	1657.2	1686.1	1707.6	1710.0
167.5°	1626.1	1630.5	1635.0	1636.2	1642.1	1650.1	1654.0	1663.4	1682.3	1696.4	1697.4
170°	1642.8	1647.3	1651.8	1652.9	1653.3	1653.7	1654.0	1663.4	1682.3	1696.4	1696.4
172.5°	1651.8	1652.7	1653.7	1654.0	1654.0	1654.0	1654.0	1661.4	1676.3	1687.5	1686.6
175°	1664.0	1664.0	1664.0	1664.0	1660.7	1656.2	1654.0	1658.7	1668.1	1675.2	1675.2
177.5°	1664.0	1664.0	1664.0	1664.0	1661.4	1657.9	1656.2	1660.0	1667.4	1673.0	1672.0
180°	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0	1664.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	735.9	735.9
2.5°	785.5	780.8
5°	1010.3	1015.0
7.5°	1360.4	1358.1
10°	1691.7	1713.0
12.5°	1933.1	1937.8
15°	2079.7	2089.2
17.5°	2136.5	2138.9
20°	2138.9	2134.2
22.5°	2112.8	2108.1
25°	2082.1	2079.7
27.5°	2053.7	2056.1
30°	2041.8	2049.0
32.5°	2041.8	2053.7
35°	2046.6	2058.4
37.5°	2044.3	2058.4
40°	2034.8	2051.3
42.5°	2008.7	2020.5
45°	1968.5	1982.8
47.5°	1916.5	1925.9
50°	1850.3	1859.7
52.5°	1767.4	1769.8
55°	1668.1	1677.5
57.5°	1561.6	1563.9
60°	1443.2	1450.4
62.5°	1317.9	1317.9
65°	1185.4	1190.1
67.5°	1048.1	1060.0
70°	908.6	910.9
72.5°	771.3	771.3
75°	629.4	631.7
77.5°	494.5	494.5
80°	366.7	369.1
82.5°	253.2	257.9
85°	158.6	158.6
87.5°	73.3	66.3
90°	42.4	42.4
92.5°	170.0	136.3
95°	592.5	490.3
97.5°	1419.7	1225.1
100°	2045.5	1813.7
102.5°	2661.1	2462.6
105°	3446.1	3339.3
107.5°	3960.1	3985.9
110°	4156.2	4267.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4173.7	4344.4
115°	4063.0	4299.7
117.5°	3828.4	4090.9
120°	3639.3	3894.3
122.5°	3455.1	3706.8
125°	3192.4	3424.2
127.5°	2956.1	3151.7
130°	2816.9	2997.6
132.5°	2690.5	2852.4
135°	2517.4	2656.9
137.5°	2378.6	2492.7
140°	2283.3	2390.0
142.5°	2204.3	2296.2
145°	2086.0	2155.5
147.5°	1995.1	2052.7
150°	1938.0	1984.6
152.5°	1889.0	1924.3
155°	1832.9	1856.2
157.5°	1788.4	1804.8
160°	1761.9	1771.3
162.5°	1744.4	1753.4
165°	1719.4	1728.8
167.5°	1701.5	1705.4
170°	1696.4	1696.4
172.5°	1683.2	1679.7
175°	1675.2	1675.2
177.5°	1668.0	1664.0
180°	1664.0	1664.0



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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	3.66	4.42	4.74	5.50	6.98	16.84	17.60	17.92	18.68	20.16
	3H	4.36	5.04	5.44	6.13	7.62	18.67	19.36	19.76	20.44	21.94
	4H	4.65	5.30	5.75	6.39	7.89	19.31	19.96	20.41	21.05	22.55
	6H	4.90	5.50	6.00	6.59	8.10	19.74	20.34	20.84	21.43	22.94
	8H	4.96	5.53	6.07	6.64	8.14	19.86	20.43	20.96	21.53	23.04
	12H	4.98	5.52	6.09	6.62	8.15	19.92	20.46	21.03	21.56	23.09
4H	2H	10.87	11.52	11.97	12.60	14.10	17.10	17.75	18.20	18.84	20.34
	3H	12.42	12.97	13.53	14.08	15.59	19.14	19.68	20.25	20.80	22.31
	4H	12.51	13.01	13.63	14.12	15.65	19.90	20.40	21.01	21.51	23.04
	6H	12.52	12.95	13.64	14.08	15.60	20.44	20.87	21.56	21.99	23.52
	8H	12.49	12.89	13.61	14.01	15.55	20.60	21.00	21.72	22.12	23.66
	12H	12.45	12.81	13.58	13.94	15.49	20.68	21.05	21.82	22.18	23.72
8H	4H	13.95	14.35	15.07	15.47	17.01	19.95	20.36	21.07	21.48	23.01
	6H	14.19	14.52	15.33	15.68	17.22	20.58	20.91	21.72	22.07	23.61
	8H	14.21	14.50	15.35	15.64	17.19	20.80	21.09	21.94	22.23	23.79
	12H	14.17	14.42	15.32	15.56	17.15	20.94	21.19	22.09	22.33	23.92
12H	4H	14.09	14.45	15.23	15.59	17.13	19.90	20.27	21.04	21.40	22.94
	6H	14.45	14.74	15.59	15.88	17.43	20.56	20.85	21.71	21.99	23.55
	8H	14.51	14.77	15.66	15.90	17.50	20.79	21.04	21.94	22.18	23.77