

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: P938493

Luminaire Tested: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938493  
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-B2750-1D-UNV-STD-W-8-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

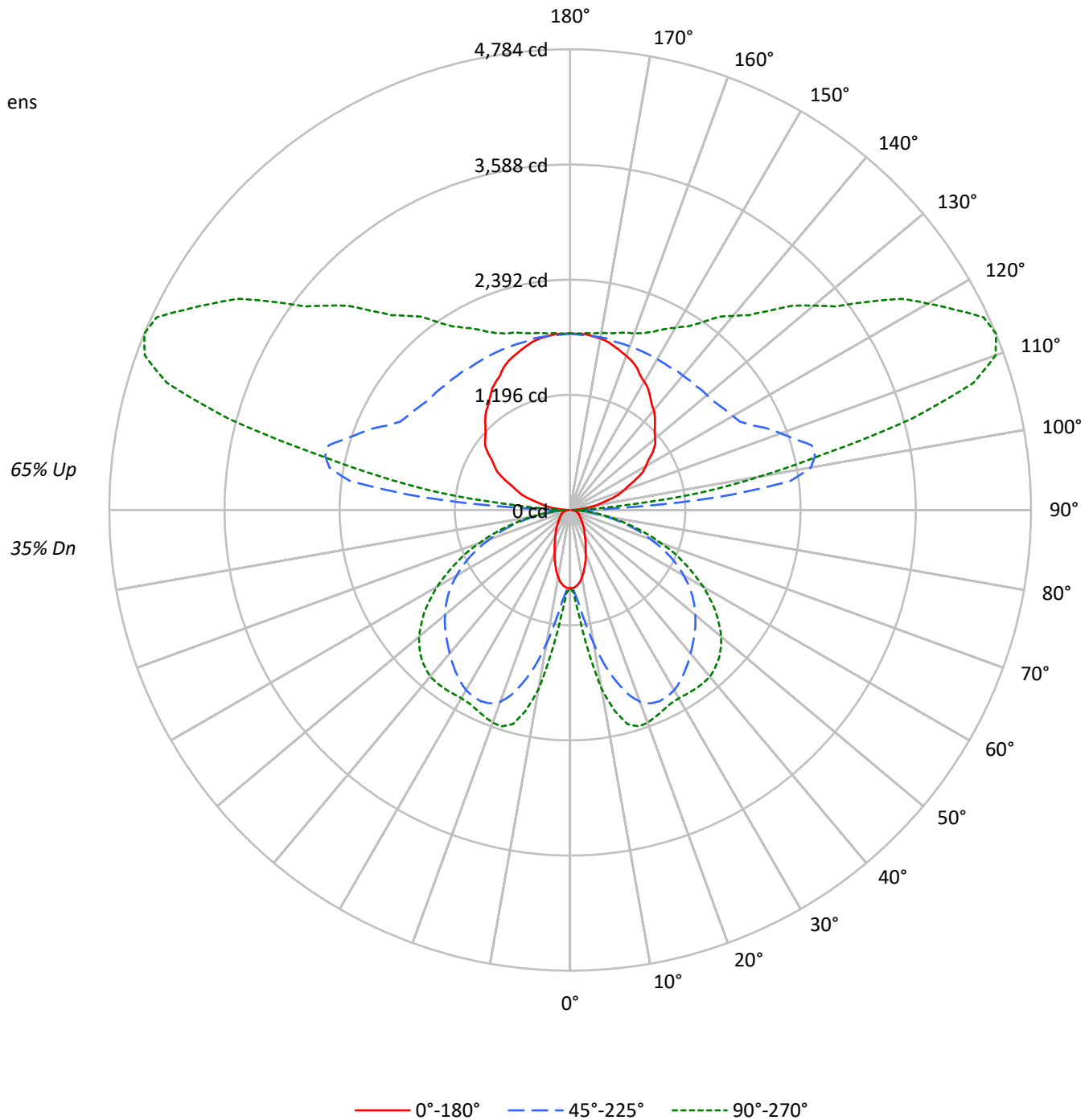
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18156.2 lumens  
Efficiency: N/A  
Efficacy: 125.4 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	0
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°	3760	3760	3760
5°	3673	4346	5054
10°	3331	6335	8378
15°	2832	8276	10117
20°	2305	9590	10310
25°	1923	10036	10101
30°	1622	10099	10082
35°	1434	9932	10342
40°	1249	9713	10612
45°	1131	9554	10654
50°	1038	9410	10477
55°	993	9200	10013
60°	1017	8796	9279
65°	1058	8182	8272
70°	1128	7135	6988
75°	1250	5817	5453
80°	1365	4035	3675
85°	1211	2141	1881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10654 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.8	0.6
10°-20°	464.6	2.6
20°-30°	812.6	4.5
30°-40°	1046.1	5.8
40°-50°	1168.4	6.4
50°-60°	1119.1	6.2
60°-70°	886.9	4.9
70°-80°	521.5	2.9
80°-90°	151.9	0.8
90°-100°	893.3	4.9
100°-110°	2348.6	12.9
110°-120°	2435.2	13.4
120°-130°	1953.3	10.8
130°-140°	1532.7	8.4
140°-150°	1176.4	6.5
150°-160°	847.2	4.7
160°-170°	518.4	2.9
170°-180°	175.1	1.0
0°-30°	1382.0	7.6
0°-40°	2428.1	13.4
0°-60°	4715.7	26.0
0°-90°	6276.0	34.6
90°-120°	5677.1	31.3
90°-150°	10339.5	56.9
90°-180°	11880.0	65.4
0°-180°	18156.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	790	847	954	1079	1118	73
15°	592	1092	1840	2230	2301	165
25°	378	1238	2191	2288	2290	174
35°	255	1183	2064	2181	2267	159
45°	175	943	1824	2090	2184	135
55°	125	599	1548	1798	1848	114
65°	99	318	1149	1292	1311	98
75°	73	195	630	693	696	76
85°	26	60	156	172	175	28
90°	12	34	94	47	47	12
95°	118	462	1539	793	540	131
105°	423	641	2596	3942	3678	449
115°	752	913	2080	4149	4735	742
125°	1046	1172	1892	3197	3771	928
135°	1246	1371	1833	2580	2926	964
145°	1445	1538	1809	2202	2374	905
155°	1633	1679	1809	1986	2044	751
165°	1762	1786	1809	1881	1904	497
175°	1833	1833	1822	1845	1845	174
180°	1833	1833	1833	1833	1833	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4	810.4
2.5°	810.4	810.4	815.6	818.2	823.4	826.0	831.2	836.4	852.1	854.7	859.9
5°	789.5	799.9	833.9	846.9	883.4	932.9	953.7	987.6	1057.9	1078.8	1091.8
7.5°	758.2	781.7	865.1	885.9	977.1	1107.4	1162.1	1235.1	1347.2	1401.9	1446.2
10°	708.7	758.2	906.8	956.3	1104.8	1302.8	1404.5	1506.1	1675.4	1751.0	1779.6
12.5°	654.0	734.8	951.1	1018.8	1232.5	1521.7	1644.2	1756.3	1949.0	2050.7	2066.3
15°	591.5	700.9	992.8	1091.8	1368.0	1704.1	1839.6	1977.7	2157.5	2230.4	2248.7
17.5°	536.8	674.9	1031.8	1136.1	1472.2	1868.3	2006.4	2121.0	2266.9	2316.4	2329.5
20°	469.0	633.2	1057.9	1193.4	1581.6	1988.2	2121.0	2209.6	2308.6	2339.9	2345.1
22.5°	419.5	588.8	1073.6	1214.3	1654.6	2061.1	2173.1	2243.4	2311.3	2321.6	2324.3
25°	377.8	539.3	1070.9	1237.7	1717.1	2105.4	2191.4	2243.4	2282.6	2287.8	2287.8
27.5°	338.7	484.6	1060.5	1243.0	1764.1	2115.9	2183.6	2220.1	2238.3	2248.7	2248.7
30°	304.9	432.6	1034.4	1232.5	1784.9	2105.4	2160.1	2178.4	2196.6	2212.2	2220.1
32.5°	278.8	383.1	995.4	1211.6	1787.5	2079.4	2118.4	2128.9	2154.9	2191.4	2204.4
35°	255.4	333.6	951.1	1183.0	1771.8	2037.7	2063.7	2074.1	2126.2	2180.9	2199.2
37.5°	231.9	297.1	893.7	1133.5	1748.4	1988.2	2006.4	2024.7	2105.4	2170.5	2191.4
40°	208.4	265.8	826.0	1078.8	1711.9	1928.2	1943.8	1972.5	2079.4	2154.9	2175.7
42.5°	190.2	239.7	753.0	1021.4	1665.1	1860.5	1884.0	1925.6	2048.0	2128.9	2152.3
45°	174.6	213.7	674.9	943.2	1605.1	1790.1	1824.0	1881.3	2011.5	2089.7	2110.6
47.5°	158.9	195.4	594.1	862.5	1539.9	1719.8	1764.1	1829.2	1962.0	2037.7	2055.9
50°	145.9	177.2	513.3	776.5	1469.6	1644.2	1696.3	1764.1	1899.5	1969.9	1993.3
52.5°	135.5	161.5	437.8	690.5	1388.8	1566.0	1625.9	1696.3	1824.0	1891.7	1907.3
55°	125.0	148.5	372.6	599.3	1305.5	1482.6	1547.7	1615.6	1740.6	1797.9	1808.3
57.5°	119.9	138.1	317.9	513.3	1216.8	1388.8	1461.7	1524.4	1641.6	1685.9	1696.3
60°	112.0	130.3	276.2	440.3	1120.5	1300.2	1362.8	1425.3	1524.4	1560.8	1568.6
62.5°	104.2	125.0	244.9	370.0	1021.4	1196.0	1258.5	1315.9	1399.2	1425.3	1435.7
65°	99.0	119.9	221.5	317.9	919.8	1086.6	1149.1	1198.6	1266.3	1292.4	1297.7
67.5°	93.8	114.7	203.2	273.6	818.2	977.1	1024.1	1070.9	1123.1	1149.1	1151.7
70°	86.0	109.4	187.6	242.4	714.0	852.1	891.1	940.6	982.4	995.4	1003.2
72.5°	80.8	101.7	177.2	218.9	607.1	732.2	768.7	797.4	833.9	846.9	846.9
75°	73.0	91.2	166.7	195.4	497.7	599.3	630.5	659.2	687.9	693.2	685.3
77.5°	65.2	80.8	143.3	164.2	388.3	474.3	500.3	515.9	539.3	544.6	547.2
80°	54.7	70.4	112.0	127.7	281.4	349.1	367.4	380.4	401.3	401.3	406.5
82.5°	41.7	54.7	80.8	91.2	190.2	239.7	255.4	263.2	276.2	276.2	276.2
85°	26.0	33.9	52.2	59.9	114.7	145.9	156.4	158.9	169.4	172.0	172.0
87.5°	13.0	18.2	33.9	36.5	59.9	75.5	75.5	80.8	80.8	78.2	75.5
90°	12.3	22.2	31.9	34.4	54.1	80.4	93.5	83.1	62.3	46.7	46.7
92.5°	49.2	132.8	216.5	237.4	333.8	462.2	526.4	461.3	331.3	233.7	224.4
95°	118.1	271.2	424.2	462.4	821.1	1299.4	1538.7	1373.0	1041.8	793.3	765.1
97.5°	204.2	339.2	474.3	508.0	1106.2	1903.8	2302.5	2197.8	1988.5	1831.4	1777.9
100°	270.6	393.0	515.5	546.1	1209.9	2094.9	2537.4	2545.1	2560.3	2571.8	2508.0
102.5°	327.2	441.4	555.6	584.2	1257.4	2155.0	2603.8	2737.2	3003.9	3204.0	3149.4
105°	423.1	519.8	616.6	640.8	1292.6	2161.8	2596.4	2895.5	3493.5	3942.0	3912.6
107.5°	521.5	611.7	701.8	724.4	1299.3	2065.7	2448.8	2865.9	3700.2	4325.8	4332.9
110°	588.0	669.4	750.8	771.2	1289.4	1980.4	2325.9	2792.2	3724.7	4424.2	4454.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	653.1	730.7	808.3	827.7	1289.8	1905.8	2213.9	2691.1	3645.5	4361.4	4408.4
115°	751.5	823.1	894.7	912.6	1301.7	1820.5	2079.9	2539.5	3459.0	4148.6	4213.8
117.5°	848.7	913.7	978.8	995.1	1325.9	1767.0	1987.6	2402.5	3232.3	3854.7	3926.9
120°	905.2	966.5	1027.7	1043.0	1345.6	1749.0	1950.7	2329.8	3088.1	3656.7	3726.9
122.5°	960.6	1022.4	1084.1	1099.6	1373.9	1739.6	1922.4	2263.8	2946.6	3458.6	3527.9
125°	1045.5	1101.8	1158.1	1172.2	1412.0	1731.7	1891.6	2181.6	2761.6	3196.6	3260.4
127.5°	1114.4	1171.2	1228.1	1242.3	1450.1	1727.3	1865.8	2114.8	2612.8	2986.3	3040.1
130°	1151.3	1212.5	1273.7	1289.0	1478.0	1729.9	1855.9	2077.6	2521.0	2853.5	2903.3
132.5°	1189.4	1250.6	1311.9	1327.2	1500.6	1731.8	1847.4	2045.8	2442.6	2740.3	2784.9
135°	1245.9	1301.7	1357.5	1371.4	1525.1	1730.1	1832.6	1998.8	2331.2	2580.5	2618.8
137.5°	1303.8	1359.0	1414.1	1427.9	1562.0	1740.8	1830.2	1970.7	2251.6	2462.3	2493.8
140°	1351.7	1402.6	1453.4	1466.1	1584.6	1742.6	1821.5	1942.9	2185.7	2367.7	2397.1
142.5°	1388.6	1435.6	1482.6	1494.4	1603.4	1748.9	1821.5	1928.1	2141.3	2301.2	2326.5
145°	1445.2	1486.2	1527.2	1537.5	1628.1	1748.9	1809.2	1896.4	2070.8	2201.6	2220.8
147.5°	1501.8	1541.7	1581.6	1591.6	1664.2	1760.9	1809.2	1877.8	2015.0	2117.9	2133.8
150°	1538.7	1574.7	1610.8	1619.8	1682.9	1767.1	1809.2	1867.2	1983.0	2070.0	2082.8
152.5°	1576.8	1604.1	1631.5	1638.3	1695.3	1771.3	1809.2	1858.7	1957.6	2031.9	2041.5
155°	1633.4	1653.6	1673.8	1678.9	1722.3	1780.2	1809.2	1848.6	1927.3	1986.4	1992.8
157.5°	1675.2	1694.9	1714.6	1719.5	1749.4	1789.3	1809.2	1839.9	1901.1	1947.1	1951.6
160°	1703.5	1718.8	1734.1	1737.9	1761.7	1793.3	1809.2	1835.4	1888.0	1927.3	1929.9
162.5°	1731.8	1743.2	1754.8	1757.6	1774.8	1797.8	1809.2	1831.4	1875.7	1908.9	1911.4
165°	1762.5	1772.8	1783.3	1785.8	1793.6	1804.0	1809.2	1825.1	1856.8	1880.6	1883.2
167.5°	1790.8	1795.7	1800.6	1801.9	1808.4	1817.2	1821.5	1831.9	1852.7	1868.3	1869.4
170°	1809.2	1814.1	1819.1	1820.4	1820.7	1821.2	1821.5	1831.9	1852.7	1868.3	1868.3
172.5°	1819.1	1820.2	1821.2	1821.5	1821.5	1821.5	1821.5	1829.7	1846.1	1858.4	1857.4
175°	1832.6	1832.6	1832.6	1832.6	1828.9	1824.0	1821.5	1826.8	1837.1	1844.9	1844.9
177.5°	1832.6	1832.6	1832.6	1832.6	1829.7	1825.9	1824.0	1828.1	1836.3	1842.4	1841.4
180°	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6	1832.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	810.4	810.4
2.5°	865.1	859.9
5°	1112.6	1117.8
7.5°	1498.2	1495.7
10°	1863.0	1886.5
12.5°	2128.9	2134.1
15°	2290.4	2300.8
17.5°	2352.9	2355.6
20°	2355.6	2350.3
22.5°	2326.9	2321.6
25°	2293.0	2290.4
27.5°	2261.7	2264.3
30°	2248.7	2256.6
32.5°	2248.7	2261.7
35°	2253.9	2266.9
37.5°	2251.3	2266.9
40°	2240.9	2259.1
42.5°	2212.2	2225.2
45°	2167.9	2183.6
47.5°	2110.6	2121.0
50°	2037.7	2048.0
52.5°	1946.5	1949.0
55°	1837.0	1847.5
57.5°	1719.8	1722.3
60°	1589.4	1597.3
62.5°	1451.4	1451.4
65°	1305.5	1310.7
67.5°	1154.3	1167.3
70°	1000.6	1003.2
72.5°	849.4	849.4
75°	693.2	695.7
77.5°	544.6	544.6
80°	403.9	406.5
82.5°	278.8	284.1
85°	174.6	174.6
87.5°	80.8	73.0
90°	46.7	46.7
92.5°	187.2	150.1
95°	652.5	539.9
97.5°	1563.5	1349.2
100°	2252.7	1997.4
102.5°	2930.7	2712.1
105°	3795.1	3677.6
107.5°	4361.3	4389.7
110°	4577.2	4699.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4596.4	4784.5
115°	4474.6	4735.3
117.5°	4216.1	4505.3
120°	4007.9	4288.8
122.5°	3805.1	4082.2
125°	3515.8	3771.1
127.5°	3255.6	3470.9
130°	3102.3	3301.2
132.5°	2963.0	3141.3
135°	2772.4	2926.1
137.5°	2619.5	2745.2
140°	2514.6	2632.1
142.5°	2427.6	2528.8
145°	2297.3	2373.8
147.5°	2197.2	2260.6
150°	2134.3	2185.7
152.5°	2080.4	2119.2
155°	2018.5	2044.2
157.5°	1969.5	1987.6
160°	1940.3	1950.7
162.5°	1921.1	1931.0
165°	1893.6	1904.0
167.5°	1873.8	1878.1
170°	1868.3	1868.3
172.5°	1853.7	1849.8
175°	1844.9	1844.9
177.5°	1836.9	1832.6
180°	1832.6	1832.6



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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	4.00	4.76	5.07	5.84	7.31	17.18	17.94	18.25	19.02	20.49
	3H	4.70	5.38	5.78	6.47	7.96	19.01	19.69	20.09	20.78	22.27
	4H	4.99	5.64	6.08	6.73	8.23	19.65	20.30	20.74	21.39	22.88
	6H	5.24	5.83	6.34	6.93	8.43	20.07	20.67	21.18	21.76	23.27
	8H	5.30	5.87	6.41	6.98	8.48	20.19	20.76	21.30	21.87	23.37
	12H	5.31	5.86	6.43	6.96	8.48	20.26	20.80	21.37	21.90	23.43
4H	2H	11.20	11.85	12.30	12.94	14.44	17.44	18.09	18.54	19.18	20.67
	3H	12.76	13.30	13.87	14.42	15.93	19.48	20.02	20.58	21.13	22.64
	4H	12.85	13.35	13.96	14.45	15.98	20.24	20.74	21.35	21.84	23.37
	6H	12.86	13.28	13.97	14.41	15.93	20.77	21.20	21.89	22.33	23.85
	8H	12.83	13.23	13.95	14.35	15.89	20.93	21.33	22.05	22.45	23.99
	12H	12.78	13.14	13.92	14.28	15.82	21.02	21.38	22.16	22.51	24.06
8H	4H	14.29	14.69	15.41	15.81	17.35	20.29	20.69	21.41	21.81	23.35
	6H	14.52	14.86	15.66	16.02	17.55	20.91	21.25	22.06	22.41	23.94
	8H	14.54	14.83	15.69	15.97	17.53	21.13	21.42	22.28	22.56	24.12
	12H	14.50	14.76	15.66	15.90	17.49	21.27	21.53	22.42	22.67	24.26
12H	4H	14.42	14.79	15.56	15.92	17.47	20.24	20.60	21.37	21.73	23.28
	6H	14.78	15.07	15.93	16.21	17.77	20.90	21.19	22.04	22.33	23.88
	8H	14.85	15.10	16.00	16.24	17.83	21.12	21.38	22.27	22.52	24.11