

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: P938492

Luminaire Tested: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938492
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-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

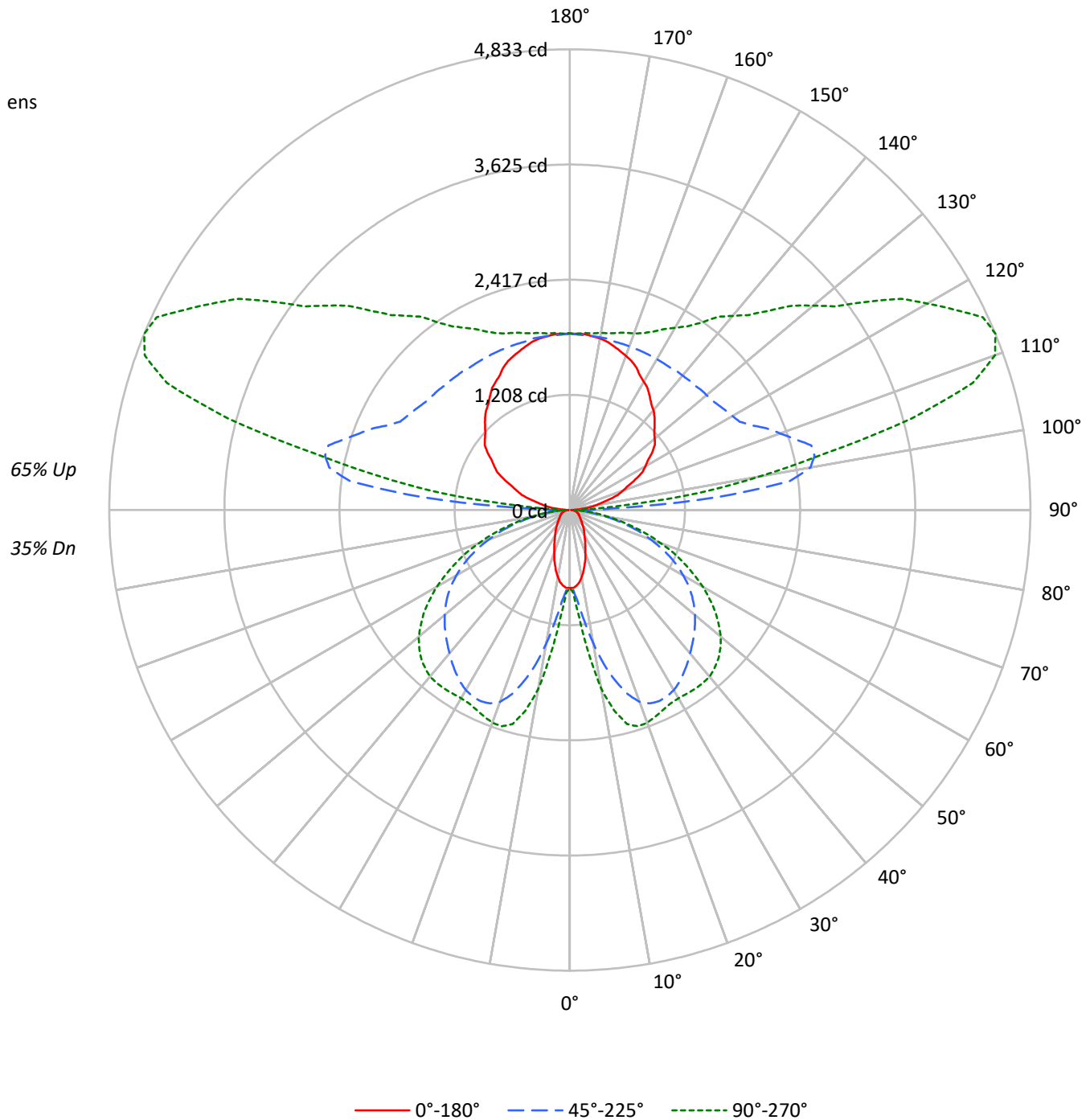
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18340.4 lumens
Efficiency: N/A
Efficacy: 126.7 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_{in}): 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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CATALOG NUMBER: SQ4-FB-150U-100D-B2750-1D-UNV-STD-W-8-2700K

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°	3798	3798	3798
5°	3710	4389	5105
10°	3365	6399	8463
15°	2860	8360	10220
20°	2329	9687	10415
25°	1943	10138	10203
30°	1638	10202	10184
35°	1449	10032	10447
40°	1262	9812	10720
45°	1143	9651	10762
50°	1048	9506	10583
55°	1004	9293	10115
60°	1027	8885	9374
65°	1069	8264	8356
70°	1140	7208	7058
75°	1262	5876	5509
80°	1380	4075	3713
85°	1225	2163	1900

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10762 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	0.6
10°-20°	469.3	2.6
20°-30°	820.9	4.5
30°-40°	1056.7	5.8
40°-50°	1180.3	6.4
50°-60°	1130.4	6.2
60°-70°	895.9	4.9
70°-80°	526.8	2.9
80°-90°	153.4	0.8
90°-100°	902.4	4.9
100°-110°	2372.4	12.9
110°-120°	2459.9	13.4
120°-130°	1973.1	10.8
130°-140°	1548.2	8.4
140°-150°	1188.3	6.5
150°-160°	855.8	4.7
160°-170°	523.6	2.9
170°-180°	176.9	1.0
0°-30°	1396.1	7.6
0°-40°	2452.8	13.4
0°-60°	4763.5	26.0
0°-90°	6339.6	34.6
90°-120°	5734.7	31.3
90°-150°	10444.4	56.9
90°-180°	12001.0	65.4
0°-180°	18340.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	819	819	819	819	819	
5°	798	856	963	1090	1129	74
15°	598	1103	1858	2253	2324	166
25°	382	1250	2214	2311	2314	176
35°	258	1195	2085	2203	2290	161
45°	176	953	1842	2111	2206	136
55°	126	605	1563	1816	1866	115
65°	100	321	1161	1306	1324	99
75°	74	197	637	700	703	77
85°	26	61	158	174	176	28
90°	12	35	94	47	47	12
95°	119	467	1554	801	545	132
105°	427	647	2623	3982	3715	453
115°	759	922	2101	4191	4783	750
125°	1056	1184	1911	3229	3809	938
135°	1258	1385	1851	2607	2956	974
145°	1460	1553	1828	2224	2398	915
155°	1650	1696	1828	2006	2065	758
165°	1780	1804	1828	1900	1923	502
175°	1851	1851	1840	1864	1864	176
180°	1851	1851	1851	1851	1851	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6	818.6
2.5°	818.6	818.6	823.9	826.5	831.8	834.3	839.6	844.9	860.7	863.3	868.6
5°	797.5	808.1	842.3	855.5	892.3	942.3	963.3	997.6	1068.6	1089.7	1102.9
7.5°	765.9	789.6	873.9	894.9	987.0	1118.6	1173.9	1247.6	1360.8	1416.1	1460.8
10°	715.9	765.9	916.0	966.0	1116.0	1316.0	1418.7	1521.4	1692.4	1768.8	1797.7
12.5°	660.6	742.2	960.7	1029.2	1245.0	1537.1	1660.8	1774.1	1968.8	2071.5	2087.2
15°	597.5	708.1	1002.9	1102.9	1381.9	1721.4	1858.2	1997.8	2179.3	2253.1	2271.5
17.5°	542.2	681.8	1042.3	1147.6	1487.1	1887.2	2026.8	2142.5	2289.9	2339.9	2353.1
20°	473.8	639.6	1068.6	1205.5	1597.7	2008.3	2142.5	2232.0	2332.0	2363.6	2368.9
22.5°	423.8	594.8	1084.4	1226.6	1671.4	2082.0	2195.2	2266.2	2334.7	2345.2	2347.9
25°	381.7	544.8	1081.8	1250.3	1734.5	2126.8	2213.6	2266.2	2305.7	2311.0	2311.0
27.5°	342.1	489.5	1071.3	1255.6	1781.9	2137.3	2205.7	2242.6	2261.0	2271.5	2271.5
30°	308.0	436.9	1044.9	1245.0	1803.0	2126.8	2182.0	2200.5	2218.9	2234.6	2242.6
32.5°	281.7	386.9	1005.5	1223.9	1805.6	2100.5	2139.9	2150.5	2176.8	2213.6	2226.8
35°	258.0	336.9	960.7	1195.0	1789.8	2058.3	2084.6	2095.2	2147.8	2203.1	2221.5
37.5°	234.3	300.1	902.8	1145.0	1766.1	2008.3	2026.8	2045.2	2126.8	2192.5	2213.6
40°	210.6	268.5	834.3	1089.7	1729.3	1947.8	1963.5	1992.5	2100.5	2176.8	2197.8
42.5°	192.1	242.1	760.6	1031.8	1681.9	1879.4	1903.1	1945.1	2068.8	2150.5	2174.2
45°	176.4	215.8	681.8	952.8	1621.4	1808.2	1842.5	1900.4	2031.9	2110.9	2132.0
47.5°	160.6	197.4	600.1	871.2	1555.6	1737.2	1781.9	1847.8	1981.9	2058.3	2076.8
50°	147.4	179.0	518.5	784.4	1484.5	1660.8	1713.5	1781.9	1918.8	1989.9	2013.5
52.5°	136.9	163.1	442.2	697.5	1402.9	1581.8	1642.4	1713.5	1842.5	1910.9	1926.7
55°	126.3	150.0	376.4	605.4	1318.7	1497.7	1563.4	1631.9	1758.2	1816.1	1826.7
57.5°	121.1	139.5	321.1	518.5	1229.2	1402.9	1476.6	1539.8	1658.2	1703.0	1713.5
60°	113.1	131.6	279.0	444.8	1131.9	1313.4	1376.6	1439.7	1539.8	1576.7	1584.5
62.5°	105.3	126.3	247.4	373.8	1031.8	1208.1	1271.3	1329.3	1413.4	1439.7	1450.3
65°	100.0	121.1	223.7	321.1	929.2	1097.6	1160.7	1210.7	1279.2	1305.6	1310.8
67.5°	94.7	115.8	205.3	276.4	826.5	987.0	1034.4	1081.8	1134.4	1160.7	1163.4
70°	86.9	110.6	189.5	244.8	721.2	860.7	900.2	950.2	992.3	1005.5	1013.3
72.5°	81.6	102.7	179.0	221.1	613.2	739.6	776.5	805.5	842.3	855.5	855.5
75°	73.7	92.1	168.4	197.4	502.8	605.4	636.9	665.9	694.9	700.2	692.2
77.5°	65.8	81.6	144.7	165.8	392.2	479.1	505.4	521.1	544.8	550.1	552.8
80°	55.3	71.1	113.1	129.0	284.3	352.7	371.1	384.3	405.4	405.4	410.7
82.5°	42.1	55.3	81.6	92.1	192.1	242.1	258.0	265.8	279.0	279.0	279.0
85°	26.3	34.3	52.7	60.6	115.8	147.4	158.0	160.6	171.1	173.7	173.7
87.5°	13.1	18.4	34.3	36.9	60.6	76.3	76.3	81.6	81.6	79.0	76.3
90°	12.4	22.4	32.3	34.8	54.7	81.2	94.4	84.0	62.9	47.2	47.2
92.5°	49.7	134.2	218.7	239.8	337.1	466.9	531.8	466.0	334.7	236.1	226.7
95°	119.3	273.9	428.5	467.1	829.5	1312.6	1554.3	1386.9	1052.4	801.4	772.9
97.5°	206.3	342.6	479.1	513.1	1117.4	1923.1	2325.9	2220.1	2008.6	1850.0	1795.9
100°	273.3	397.0	520.7	551.7	1222.2	2116.1	2563.1	2570.9	2586.3	2597.9	2533.4
102.5°	330.5	445.9	561.2	590.1	1270.2	2176.9	2630.2	2765.0	3034.4	3236.5	3181.3
105°	427.4	525.1	622.9	647.3	1305.8	2183.7	2622.8	2924.9	3528.9	3982.0	3952.3
107.5°	526.8	617.9	709.0	731.8	1312.4	2086.6	2473.7	2895.0	3737.7	4369.7	4376.8
110°	593.9	676.2	758.5	779.0	1302.5	2000.5	2349.5	2820.5	3762.5	4469.1	4499.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	659.8	738.1	816.5	836.1	1302.9	1925.2	2236.3	2718.4	3682.5	4405.6	4453.1
115°	759.2	831.5	903.8	921.9	1314.9	1838.9	2101.0	2565.3	3494.1	4190.7	4256.5
117.5°	857.3	923.0	988.7	1005.2	1339.3	1784.9	2007.7	2426.9	3265.1	3893.8	3966.8
120°	914.4	976.3	1038.1	1053.6	1359.2	1766.7	1970.5	2353.4	3119.4	3693.8	3764.7
122.5°	970.3	1032.8	1095.1	1110.7	1387.8	1757.2	1941.9	2286.7	2976.4	3493.7	3563.7
125°	1056.1	1112.9	1169.8	1184.0	1426.3	1749.3	1910.8	2203.7	2789.6	3229.0	3293.5
127.5°	1125.7	1183.0	1240.5	1254.9	1464.8	1744.8	1884.7	2136.2	2639.3	3016.6	3071.0
130°	1162.9	1224.8	1286.6	1302.1	1493.0	1747.5	1874.8	2098.7	2546.6	2882.4	2932.7
132.5°	1201.5	1263.3	1325.2	1340.6	1515.8	1749.4	1866.1	2066.5	2467.4	2768.1	2813.1
135°	1258.5	1314.9	1371.3	1385.3	1540.6	1747.7	1851.2	2019.1	2354.8	2606.6	2645.4
137.5°	1317.0	1372.8	1428.5	1442.4	1577.9	1758.4	1848.8	1990.7	2274.5	2487.3	2519.1
140°	1365.4	1416.8	1468.1	1481.0	1600.7	1760.2	1840.0	1962.6	2207.8	2391.7	2421.4
142.5°	1402.7	1450.2	1497.7	1509.5	1619.7	1766.6	1840.0	1947.7	2163.0	2324.6	2350.1
145°	1459.8	1501.3	1542.7	1553.1	1644.6	1766.6	1827.6	1915.6	2091.8	2224.0	2243.3
147.5°	1517.0	1557.3	1597.7	1607.7	1681.0	1778.8	1827.6	1896.9	2035.4	2139.4	2155.4
150°	1554.3	1590.7	1627.2	1636.2	1700.0	1785.0	1827.6	1886.1	2003.2	2091.0	2104.0
152.5°	1592.8	1620.4	1648.1	1655.0	1712.5	1789.2	1827.6	1877.6	1977.5	2052.5	2062.2
155°	1650.0	1670.4	1690.8	1695.9	1739.8	1798.3	1827.6	1867.3	1946.9	2006.5	2013.0
157.5°	1692.2	1712.1	1731.9	1736.9	1767.1	1807.4	1827.6	1858.5	1920.4	1966.8	1971.4
160°	1720.8	1736.2	1751.7	1755.5	1779.6	1811.5	1827.6	1854.1	1907.1	1946.9	1949.5
162.5°	1749.4	1760.9	1772.6	1775.5	1792.8	1816.0	1827.6	1850.0	1894.7	1928.3	1930.7
165°	1780.4	1790.8	1801.4	1804.0	1811.8	1822.3	1827.6	1843.6	1875.7	1899.7	1902.3
167.5°	1808.9	1813.9	1818.9	1820.2	1826.8	1835.6	1840.0	1850.5	1871.5	1887.2	1888.3
170°	1827.6	1832.5	1837.5	1838.8	1839.2	1839.7	1840.0	1850.5	1871.5	1887.2	1887.2
172.5°	1837.5	1838.6	1839.7	1840.0	1840.0	1840.0	1840.0	1848.3	1864.8	1877.3	1876.3
175°	1851.2	1851.2	1851.2	1851.2	1847.5	1842.5	1840.0	1845.3	1855.7	1863.6	1863.6
177.5°	1851.2	1851.2	1851.2	1851.2	1848.3	1844.4	1842.5	1846.7	1855.0	1861.1	1860.0
180°	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	818.6	818.6
2.5°	873.9	868.6
5°	1123.9	1129.2
7.5°	1513.4	1510.8
10°	1881.9	1905.6
12.5°	2150.5	2155.7
15°	2313.6	2324.2
17.5°	2376.8	2379.4
20°	2379.4	2374.2
22.5°	2350.5	2345.2
25°	2316.3	2313.6
27.5°	2284.6	2287.3
30°	2271.5	2279.4
32.5°	2271.5	2284.6
35°	2276.8	2289.9
37.5°	2274.2	2289.9
40°	2263.6	2282.0
42.5°	2234.6	2247.8
45°	2189.9	2205.7
47.5°	2132.0	2142.5
50°	2058.3	2068.8
52.5°	1966.2	1968.8
55°	1855.6	1866.2
57.5°	1737.2	1739.8
60°	1605.6	1613.5
62.5°	1466.1	1466.1
65°	1318.7	1324.0
67.5°	1166.0	1179.2
70°	1010.7	1013.3
72.5°	858.1	858.1
75°	700.2	702.8
77.5°	550.1	550.1
80°	408.0	410.7
82.5°	281.7	286.9
85°	176.4	176.4
87.5°	81.6	73.7
90°	47.2	47.2
92.5°	189.1	151.6
95°	659.2	545.4
97.5°	1579.4	1362.9
100°	2275.6	2017.7
102.5°	2960.4	2739.6
105°	3833.6	3714.9
107.5°	4405.5	4434.2
110°	4623.6	4747.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4643.1	4833.0
115°	4519.9	4783.3
117.5°	4258.9	4551.0
120°	4048.5	4332.3
122.5°	3843.7	4123.6
125°	3551.4	3809.3
127.5°	3288.6	3506.1
130°	3133.7	3334.7
132.5°	2993.1	3173.2
135°	2800.6	2955.7
137.5°	2646.1	2773.1
140°	2540.1	2658.8
142.5°	2452.3	2554.4
145°	2320.6	2397.9
147.5°	2219.5	2283.5
150°	2155.9	2207.8
152.5°	2101.5	2140.7
155°	2039.0	2064.9
157.5°	1989.5	2007.7
160°	1960.0	1970.5
162.5°	1940.6	1950.6
165°	1912.8	1923.3
167.5°	1892.8	1897.2
170°	1887.2	1887.2
172.5°	1872.5	1868.6
175°	1863.6	1863.6
177.5°	1855.5	1851.2
180°	1851.2	1851.2



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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	4.03	4.80	5.11	5.87	7.35	17.21	17.97	18.29	19.05	20.53
	3H	4.73	5.42	5.81	6.50	7.99	19.04	19.73	20.13	20.81	22.31
	4H	5.03	5.67	6.12	6.76	8.26	19.68	20.33	20.78	21.42	22.92
	6H	5.27	5.87	6.37	6.96	8.47	20.11	20.71	21.21	21.80	23.31
	8H	5.34	5.91	6.44	7.01	8.52	20.23	20.80	21.33	21.91	23.41
	12H	5.35	5.89	6.46	6.99	8.52	20.29	20.83	21.40	21.94	23.46
4H	2H	11.24	11.89	12.34	12.97	14.47	17.47	18.12	18.57	19.21	20.71
	3H	12.79	13.34	13.90	14.45	15.96	19.51	20.05	20.62	21.17	22.68
	4H	12.88	13.38	14.00	14.49	16.02	20.27	20.77	21.38	21.88	23.41
	6H	12.89	13.32	14.01	14.45	15.97	20.81	21.24	21.93	22.36	23.89
	8H	12.86	13.26	13.98	14.38	15.92	20.97	21.37	22.09	22.49	24.03
	12H	12.82	13.18	13.95	14.31	15.86	21.05	21.42	22.19	22.55	24.09
8H	4H	14.32	14.72	15.44	15.84	17.38	20.32	20.73	21.44	21.85	23.38
	6H	14.56	14.89	15.70	16.05	17.59	20.95	21.28	22.09	22.44	23.98
	8H	14.58	14.87	15.72	16.01	17.56	21.17	21.46	22.32	22.60	24.16
	12H	14.54	14.79	15.69	15.93	17.52	21.31	21.56	22.46	22.70	24.29
12H	4H	14.46	14.82	15.60	15.96	17.50	20.27	20.64	21.41	21.77	23.31
	6H	14.82	15.11	15.96	16.25	17.80	20.93	21.22	22.08	22.36	23.92
	8H	14.88	15.14	16.03	16.27	17.87	21.16	21.41	22.31	22.55	24.14