

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: P937528

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937528
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

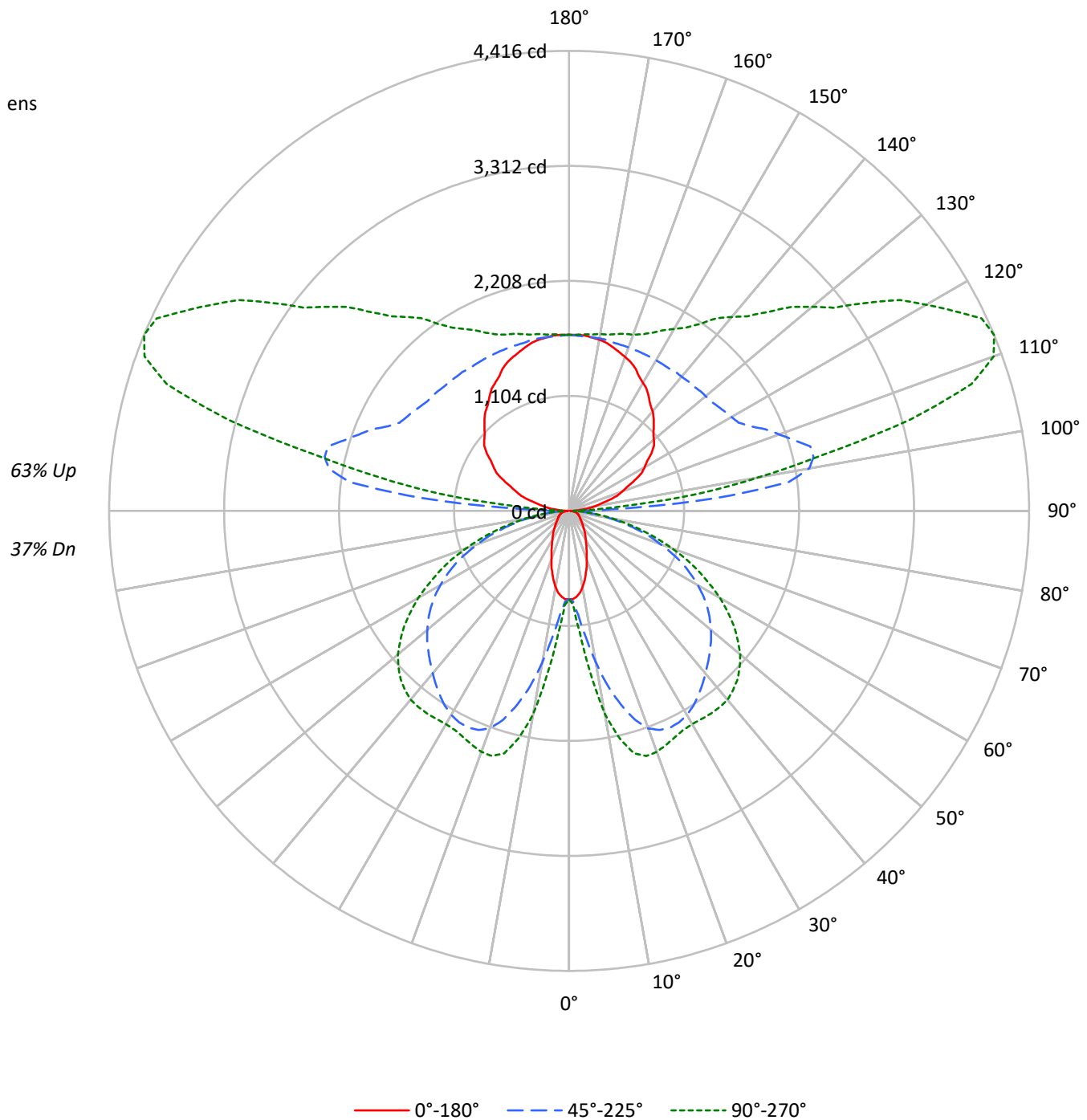
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17536.0 lumens
Efficiency: N/A
Efficacy: 118.8 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): 147.6
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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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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2625	2625	2625
5°	2566	3035	3529
10°	2328	4425	5850
15°	1979	5783	7064
20°	1612	6703	7199
25°	1345	7016	7053
30°	1135	7062	7039
35°	1004	6947	7221
40°	875	6796	7410
45°	793	6686	7439
50°	728	6588	7315
55°	698	6444	6991
60°	715	6164	6479
65°	746	5736	5776
70°	797	5006	4879
75°	885	4085	3807
80°	975	2837	2566
85°	885	1507	1313

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7439 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	0.6
10°-20°	486.6	2.8
20°-30°	851.1	4.9
30°-40°	1095.6	6.2
40°-50°	1223.8	7.0
50°-60°	1172.1	6.7
60°-70°	928.9	5.3
70°-80°	546.2	3.1
80°-90°	158.2	0.9
90°-100°	824.4	4.7
100°-110°	2167.4	12.4
110°-120°	2247.4	12.8
120°-130°	1802.7	10.3
130°-140°	1414.5	8.1
140°-150°	1085.6	6.2
150°-160°	781.8	4.5
160°-170°	478.4	2.7
170°-180°	161.6	0.9
0°-30°	1447.5	8.3
0°-40°	2543.1	14.5
0°-60°	4938.9	28.2
0°-90°	6572.2	37.5
90°-120°	5239.2	29.9
90°-150°	9541.9	54.4
90°-180°	10964.0	62.5
0°-180°	17536.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	849	849	849	849	849	
5°	827	887	999	1130	1171	76
15°	620	1144	1927	2336	2410	172
25°	396	1296	2295	2396	2399	182
35°	267	1239	2161	2284	2374	167
45°	183	988	1910	2189	2287	141
55°	131	628	1621	1883	1935	119
65°	104	333	1204	1354	1373	103
75°	76	205	660	726	729	80
85°	27	63	164	180	183	29
90°	11	32	86	43	43	11
95°	109	427	1420	732	498	121
105°	390	591	2396	3638	3394	414
115°	694	842	1919	3829	4370	685
125°	965	1082	1746	2950	3480	857
135°	1150	1266	1691	2381	2700	890
145°	1334	1419	1670	2032	2191	836
155°	1507	1549	1670	1833	1886	693
165°	1626	1648	1670	1736	1757	459
175°	1691	1691	1681	1703	1703	161
180°	1691	1691	1691	1691	1691	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7	848.7
2.5°	848.7	848.7	854.1	856.9	862.3	865.1	870.5	876.0	892.4	895.1	900.5
5°	826.9	837.8	873.3	886.9	925.1	977.0	998.8	1034.3	1108.0	1129.9	1143.5
7.5°	794.1	818.7	906.0	927.8	1023.3	1159.9	1217.2	1293.6	1410.9	1468.2	1514.6
10°	742.3	794.1	949.7	1001.5	1157.1	1364.5	1471.0	1577.4	1754.8	1833.9	1863.9
12.5°	685.0	769.6	996.1	1067.1	1290.9	1593.8	1722.0	1839.4	2041.3	2147.7	2164.1
15°	619.5	734.1	1039.8	1143.5	1432.8	1784.8	1926.7	2071.3	2259.6	2336.0	2355.1
17.5°	562.2	706.8	1080.7	1189.9	1541.9	1956.7	2101.4	2221.4	2374.2	2426.1	2439.7
20°	491.2	663.1	1108.0	1249.9	1656.5	2082.3	2221.4	2314.2	2417.9	2450.7	2456.1
22.5°	439.4	616.7	1124.4	1271.8	1732.9	2158.7	2276.0	2349.7	2420.6	2431.6	2434.3
25°	395.7	564.9	1121.7	1296.3	1798.4	2205.1	2295.1	2349.7	2390.6	2396.1	2396.1
27.5°	354.8	507.6	1110.8	1301.8	1847.6	2216.0	2286.9	2325.1	2344.2	2355.1	2355.1
30°	319.3	453.0	1083.5	1290.9	1869.4	2205.1	2262.4	2281.5	2300.6	2316.9	2325.1
32.5°	292.0	401.1	1042.5	1269.0	1872.1	2177.8	2218.7	2229.6	2256.9	2295.1	2308.7
35°	267.4	349.3	996.1	1239.0	1855.8	2134.1	2161.4	2172.3	2226.9	2284.2	2303.3
37.5°	242.9	311.1	936.0	1187.2	1831.2	2082.3	2101.4	2120.5	2205.1	2273.3	2295.1
40°	218.3	278.3	865.1	1129.9	1793.0	2019.5	2035.9	2065.9	2177.8	2256.9	2278.7
42.5°	199.2	251.1	788.7	1069.8	1743.9	1948.5	1973.1	2016.8	2145.0	2229.6	2254.2
45°	182.8	223.8	706.8	987.9	1681.1	1874.9	1910.3	1970.4	2106.8	2188.7	2210.5
47.5°	166.5	204.7	622.2	903.3	1612.9	1801.2	1847.6	1915.8	2055.0	2134.1	2153.2
50°	152.8	185.6	537.6	813.2	1539.2	1722.0	1776.6	1847.6	1989.5	2063.1	2087.7
52.5°	141.9	169.2	458.5	723.2	1454.6	1640.2	1702.9	1776.6	1910.3	1981.3	1997.7
55°	131.0	155.5	390.2	627.6	1367.3	1552.8	1621.1	1692.0	1823.0	1883.0	1894.0
57.5°	125.5	144.6	332.9	537.6	1274.5	1454.6	1531.0	1596.5	1719.3	1765.7	1776.6
60°	117.3	136.4	289.3	461.2	1173.5	1361.8	1427.3	1492.8	1596.5	1634.7	1642.9
62.5°	109.2	131.0	256.5	387.5	1069.8	1252.7	1318.2	1378.2	1465.5	1492.8	1503.7
65°	103.7	125.5	232.0	332.9	963.3	1138.0	1203.5	1255.4	1326.3	1353.6	1359.1
67.5°	98.2	120.1	212.9	286.5	856.9	1023.3	1072.6	1121.7	1176.3	1203.5	1206.3
70°	90.1	114.6	196.5	253.8	747.7	892.4	933.3	985.1	1028.8	1042.5	1050.7
72.5°	84.6	106.4	185.6	229.2	635.8	766.8	805.0	835.0	873.3	886.9	886.9
75°	76.4	95.5	174.7	204.7	521.2	627.6	660.4	690.4	720.4	725.9	717.7
77.5°	68.2	84.6	150.1	171.9	406.6	496.7	524.0	540.3	564.9	570.3	573.1
80°	57.3	73.7	117.3	133.7	294.7	365.7	384.8	398.4	420.3	420.3	425.7
82.5°	43.7	57.3	84.6	95.5	199.2	251.1	267.4	275.6	289.3	289.3	289.3
85°	27.3	35.5	54.6	62.8	120.1	152.8	163.7	166.5	177.4	180.1	180.1
87.5°	13.6	19.1	35.5	38.2	62.8	79.1	79.1	84.6	84.6	81.9	79.1
90°	11.4	20.5	29.5	31.7	49.9	74.1	86.2	76.7	57.5	43.1	43.1
92.5°	45.4	122.5	199.8	219.0	308.0	426.5	485.8	425.8	305.7	215.7	207.1
95°	109.0	250.2	391.5	426.8	757.8	1199.3	1419.9	1267.1	961.4	732.1	706.1
97.5°	188.4	313.0	437.6	468.8	1020.8	1756.8	2124.8	2028.2	1835.0	1690.1	1640.7
100°	249.7	362.7	475.6	503.9	1116.5	1933.3	2341.7	2348.8	2362.9	2373.4	2314.6
102.5°	301.9	407.3	512.8	539.1	1160.4	1988.8	2403.0	2526.1	2772.2	2956.9	2906.4
105°	390.5	479.7	569.1	591.4	1193.0	1995.1	2396.2	2672.1	3224.0	3637.9	3610.8
107.5°	481.3	564.5	647.8	668.6	1199.0	1906.2	2259.9	2644.9	3414.7	3992.0	3998.6
110°	542.6	617.7	692.9	711.7	1189.9	1827.6	2146.4	2576.7	3437.3	4082.8	4111.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.7	674.4	746.0	763.9	1190.4	1758.9	2043.1	2483.6	3364.4	4025.0	4068.4
115°	693.5	759.6	825.7	842.2	1201.3	1680.0	1919.4	2343.7	3192.2	3828.6	3888.7
117.5°	783.2	843.2	903.3	918.3	1223.6	1630.7	1834.3	2217.1	2983.0	3557.3	3624.0
120°	835.4	891.9	948.5	962.6	1241.8	1614.2	1800.3	2150.1	2849.8	3374.6	3439.4
122.5°	886.5	943.6	1000.5	1014.8	1267.9	1605.4	1774.2	2089.2	2719.3	3191.8	3255.8
125°	964.9	1016.8	1068.7	1081.7	1303.1	1598.2	1745.8	2013.4	2548.6	2950.0	3008.9
127.5°	1028.3	1080.8	1133.3	1146.4	1338.3	1594.0	1721.9	1951.7	2411.3	2755.9	2805.6
130°	1062.5	1118.9	1175.4	1189.5	1364.0	1596.6	1712.8	1917.4	2326.6	2633.4	2679.3
132.5°	1097.7	1154.1	1210.6	1224.7	1384.7	1598.1	1704.8	1888.0	2254.3	2529.0	2570.1
135°	1149.9	1201.3	1252.8	1265.6	1407.5	1596.7	1691.3	1844.7	2151.3	2381.3	2416.8
137.5°	1203.2	1254.1	1305.1	1317.8	1441.5	1606.5	1689.0	1818.6	2078.0	2272.5	2301.5
140°	1247.5	1294.4	1341.3	1353.0	1462.3	1608.1	1681.0	1793.0	2017.0	2185.0	2212.1
142.5°	1281.5	1324.9	1368.3	1379.1	1479.7	1613.9	1681.0	1779.4	1976.2	2123.7	2147.0
145°	1333.7	1371.6	1409.4	1418.9	1502.4	1614.0	1669.7	1750.1	1911.1	2031.8	2049.4
147.5°	1385.9	1422.8	1459.6	1468.8	1535.7	1625.1	1669.7	1733.0	1859.7	1954.6	1969.3
150°	1419.9	1453.2	1486.5	1494.9	1553.2	1630.9	1669.7	1723.2	1830.1	1910.3	1922.2
152.5°	1455.1	1480.3	1505.6	1511.9	1564.5	1634.6	1669.7	1715.4	1806.6	1875.1	1884.0
155°	1507.4	1526.0	1544.7	1549.4	1589.5	1643.0	1669.7	1706.0	1778.6	1833.1	1839.0
157.5°	1545.9	1564.1	1582.3	1586.9	1614.5	1651.4	1669.7	1697.9	1754.4	1796.8	1801.0
160°	1572.0	1586.2	1600.3	1603.9	1625.8	1655.1	1669.7	1693.9	1742.3	1778.6	1781.0
162.5°	1598.1	1608.7	1619.3	1622.0	1637.9	1659.1	1669.7	1690.1	1730.9	1761.6	1763.9
165°	1626.5	1636.1	1645.7	1648.1	1655.3	1664.9	1669.7	1684.4	1713.6	1735.5	1737.9
167.5°	1652.6	1657.2	1661.7	1662.9	1668.9	1677.0	1681.0	1690.7	1709.8	1724.2	1725.2
170°	1669.7	1674.3	1678.8	1679.9	1680.3	1680.7	1681.0	1690.7	1709.8	1724.2	1724.2
172.5°	1678.7	1679.7	1680.7	1681.0	1681.0	1681.0	1681.0	1688.6	1703.8	1715.1	1714.2
175°	1691.3	1691.3	1691.3	1691.3	1687.8	1683.3	1681.0	1685.8	1695.4	1702.6	1702.6
177.5°	1691.3	1691.3	1691.3	1691.3	1688.7	1685.1	1683.3	1687.1	1694.7	1700.3	1699.3
180°	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	848.7	848.7
2.5°	906.0	900.5
5°	1165.3	1170.8
7.5°	1569.2	1566.5
10°	1951.3	1975.8
12.5°	2229.6	2235.1
15°	2398.8	2409.7
17.5°	2464.3	2467.0
20°	2467.0	2461.6
22.5°	2437.0	2431.6
25°	2401.5	2398.8
27.5°	2368.8	2371.5
30°	2355.1	2363.3
32.5°	2355.1	2368.8
35°	2360.6	2374.2
37.5°	2357.9	2374.2
40°	2347.0	2366.1
42.5°	2316.9	2330.6
45°	2270.5	2286.9
47.5°	2210.5	2221.4
50°	2134.1	2145.0
52.5°	2038.6	2041.3
55°	1924.0	1934.9
57.5°	1801.2	1803.9
60°	1664.7	1672.9
62.5°	1520.1	1520.1
65°	1367.3	1372.7
67.5°	1209.0	1222.6
70°	1048.0	1050.7
72.5°	889.6	889.6
75°	725.9	728.6
77.5°	570.3	570.3
80°	423.0	425.7
82.5°	292.0	297.5
85°	182.8	182.8
87.5°	84.6	76.4
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.2	498.3
97.5°	1443.0	1245.2
100°	2079.0	1843.4
102.5°	2704.6	2502.9
105°	3502.3	3393.9
107.5°	4024.9	4051.1
110°	4224.1	4337.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4241.9	4415.5
115°	4129.4	4370.0
117.5°	3890.9	4157.8
120°	3698.7	3958.0
122.5°	3511.5	3767.3
125°	3244.5	3480.1
127.5°	3004.4	3203.2
130°	2862.9	3046.6
132.5°	2734.6	2899.0
135°	2558.5	2700.3
137.5°	2417.5	2533.5
140°	2320.7	2429.1
142.5°	2240.3	2333.7
145°	2120.1	2190.7
147.5°	2027.8	2086.3
150°	1969.6	2017.0
152.5°	1919.9	1955.7
155°	1862.8	1886.5
157.5°	1817.6	1834.3
160°	1790.6	1800.3
162.5°	1773.0	1782.1
165°	1747.5	1757.1
167.5°	1729.2	1733.2
170°	1724.2	1724.2
172.5°	1710.7	1707.1
175°	1702.6	1702.6
177.5°	1695.3	1691.3
180°	1691.3	1691.3



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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	3.10	3.88	4.15	4.94	6.38	16.29	17.07	17.34	18.13	19.57
	3H	3.79	4.50	4.86	5.57	7.02	18.13	18.83	19.19	19.90	21.36
	4H	4.09	4.76	5.16	5.83	7.29	18.77	19.44	19.84	20.51	21.97
	6H	4.34	4.95	5.42	6.03	7.50	19.20	19.82	20.28	20.89	22.37
	8H	4.40	4.99	5.49	6.08	7.55	19.32	19.91	20.41	21.00	22.47
	12H	4.42	4.97	5.51	6.06	7.55	19.39	19.95	20.48	21.03	22.53
4H	2H	10.31	10.98	11.39	12.05	13.51	16.55	17.22	17.63	18.29	19.75
	3H	11.87	12.43	12.96	13.53	15.00	18.60	19.16	19.68	20.25	21.73
	4H	11.96	12.48	13.05	13.56	15.06	19.36	19.88	20.45	20.96	22.46
	6H	11.97	12.41	13.07	13.52	15.01	19.90	20.34	21.00	21.46	22.94
	8H	11.94	12.35	13.04	13.46	14.96	20.06	20.48	21.17	21.58	23.09
	12H	11.89	12.27	13.01	13.38	14.90	20.16	20.53	21.28	21.65	23.16
8H	4H	13.40	13.82	14.50	14.92	16.42	19.42	19.83	20.52	20.93	22.44
	6H	13.64	13.98	14.76	15.13	16.63	20.05	20.39	21.17	21.53	23.04
	8H	13.66	13.96	14.79	15.08	16.61	20.27	20.57	21.40	21.69	23.22
	12H	13.62	13.89	14.76	15.01	16.57	20.41	20.68	21.55	21.80	23.36
12H	4H	13.54	13.92	14.66	15.03	16.54	19.37	19.74	20.48	20.86	22.37
	6H	13.90	14.20	15.03	15.33	16.85	20.03	20.33	21.16	21.45	22.98
	8H	13.97	14.23	15.10	15.35	16.91	20.26	20.52	21.39	21.64	23.20