

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: P937627

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937627
REPORT IS A COMBINATION OF REPORTS P933559 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-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

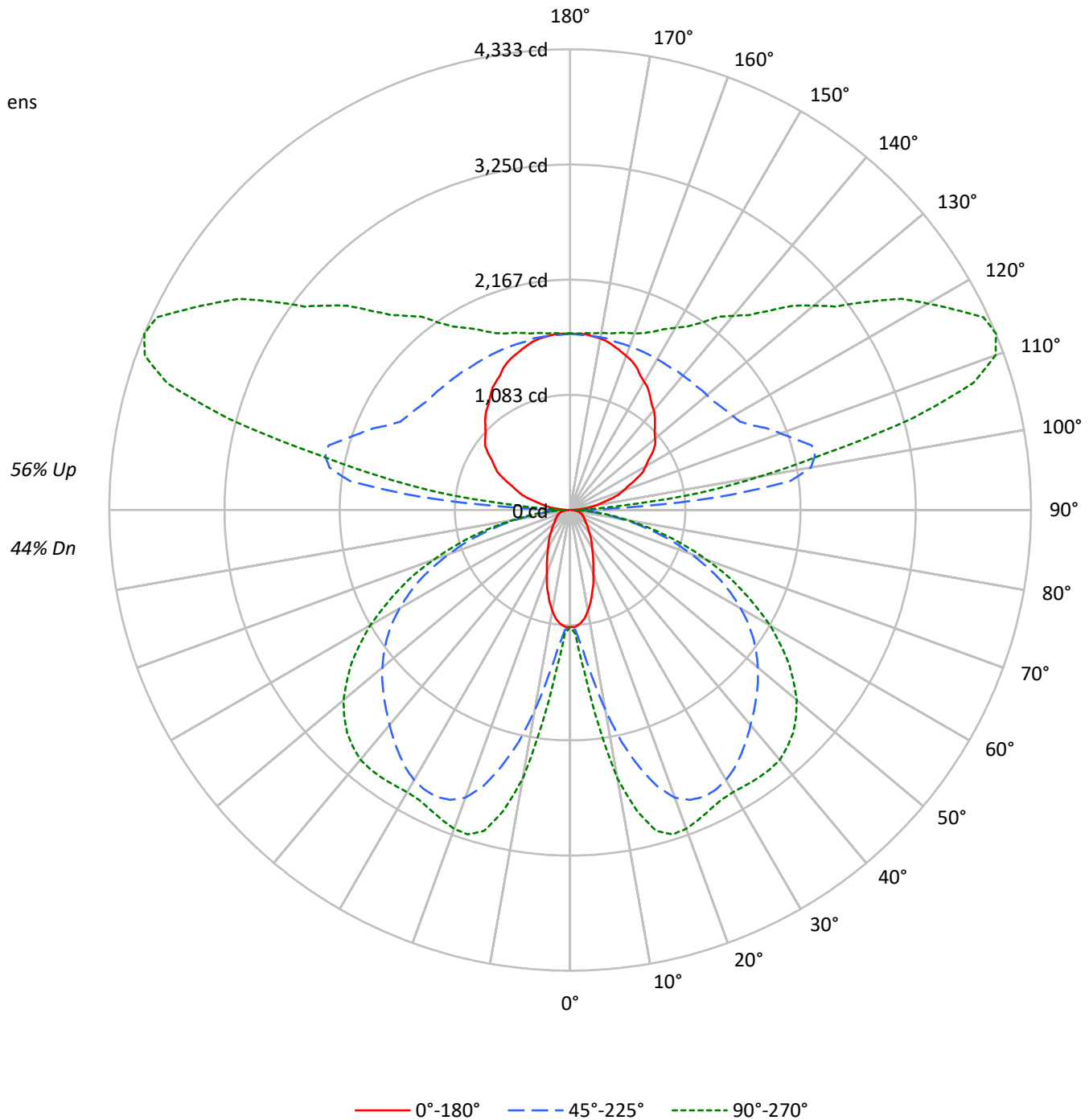
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19277.0 lumens
Efficiency: N/A
Efficacy: 110.8 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: General Diffuse

Input Watts (W): 174
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	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°	3403	3403	3403
5°	3326	3935	4575
10°	3018	5737	7584
15°	2566	7497	9158
20°	2090	8690	9333
25°	1744	9096	9143
30°	1471	9155	9126
35°	1302	9006	9362
40°	1135	8811	9606
45°	1029	8669	9644
50°	944	8541	9484
55°	905	8354	9063
60°	928	7991	8400
65°	966	7436	7488
70°	1033	6490	6325
75°	1149	5296	4937
80°	1264	3678	3326
85°	1144	1955	1703

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9644 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	0.7
10°-20°	630.8	3.3
20°-30°	1103.4	5.7
30°-40°	1420.4	7.4
40°-50°	1586.5	8.2
50°-60°	1519.5	7.9
60°-70°	1204.2	6.2
70°-80°	708.1	3.7
80°-90°	203.1	1.1
90°-100°	809.0	4.2
100°-110°	2126.9	11.0
110°-120°	2205.3	11.4
120°-130°	1768.9	9.2
130°-140°	1388.0	7.2
140°-150°	1065.3	5.5
150°-160°	767.2	4.0
160°-170°	469.4	2.4
170°-180°	158.6	0.8
0°-30°	1876.5	9.7
0°-40°	3296.9	17.1
0°-60°	6403.0	33.2
0°-90°	8518.4	44.2
90°-120°	5141.2	26.7
90°-150°	9363.4	48.6
90°-180°	10759.0	55.8
0°-180°	19277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1072	1150	1295	1465	1518	99
15°	803	1482	2498	3028	3124	224
25°	513	1680	2976	3106	3110	236
35°	347	1606	2802	2961	3078	217
45°	237	1281	2477	2838	2965	183
55°	170	814	2102	2441	2508	155
65°	134	432	1560	1755	1780	133
75°	99	265	856	941	945	104
85°	35	81	212	234	237	38
90°	11	31	85	42	42	12
95°	107	419	1393	718	489	119
105°	383	580	2351	3570	3330	406
115°	680	826	1884	3757	4288	672
125°	947	1062	1713	2895	3415	841
135°	1128	1242	1660	2337	2650	873
145°	1309	1392	1638	1994	2150	820
155°	1479	1520	1638	1799	1851	680
165°	1596	1617	1638	1703	1724	450
175°	1660	1660	1650	1671	1671	158
180°	1660	1660	1660	1660	1660	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3
2.5°	1100.3	1100.3	1107.4	1111.0	1118.0	1121.6	1128.6	1135.7	1156.9	1160.5	1167.5
5°	1072.0	1086.1	1132.2	1149.9	1199.4	1266.6	1294.9	1340.9	1436.4	1464.7	1482.4
7.5°	1029.5	1061.4	1174.6	1202.9	1326.7	1503.6	1578.0	1677.0	1829.2	1903.4	1963.6
10°	962.3	1029.5	1231.2	1298.4	1500.1	1769.0	1907.0	2045.0	2274.9	2377.5	2416.4
12.5°	888.1	997.7	1291.4	1383.4	1673.5	2066.1	2232.4	2384.6	2646.4	2784.4	2805.6
15°	803.1	951.7	1347.9	1482.4	1857.5	2313.8	2497.8	2685.4	2929.5	3028.5	3053.3
17.5°	728.8	916.4	1401.1	1542.5	1998.9	2536.7	2724.3	2879.9	3078.0	3145.2	3163.0
20°	636.8	859.8	1436.4	1620.4	2147.6	2699.5	2879.9	3000.2	3134.6	3177.1	3184.2
22.5°	569.6	799.6	1457.6	1648.7	2246.6	2798.5	2950.6	3046.2	3138.2	3152.4	3155.9
25°	513.0	732.4	1454.1	1680.5	2331.5	2858.7	2975.5	3046.2	3099.3	3106.3	3106.3
27.5°	460.0	658.0	1440.0	1687.6	2395.3	2872.8	2964.8	3014.4	3039.1	3053.3	3053.3
30°	413.9	587.3	1404.5	1673.5	2423.6	2858.7	2933.0	2957.8	2982.5	3003.8	3014.4
32.5°	378.6	520.0	1351.5	1645.2	2427.0	2823.4	2876.4	2890.6	2925.9	2975.5	2993.1
35°	346.7	452.8	1291.4	1606.3	2405.8	2766.7	2802.1	2816.2	2887.0	2961.3	2986.1
37.5°	314.9	403.4	1213.5	1539.1	2374.0	2699.5	2724.3	2749.0	2858.7	2947.2	2975.5
40°	283.0	360.9	1121.6	1464.7	2324.5	2618.1	2639.3	2678.2	2823.4	2925.9	2954.2
42.5°	258.2	325.5	1022.5	1386.9	2260.7	2526.1	2558.0	2614.6	2780.9	2890.6	2922.3
45°	237.1	290.1	916.4	1280.7	2179.4	2430.6	2476.6	2554.4	2731.3	2837.5	2865.8
47.5°	215.8	265.4	806.7	1171.1	2091.0	2335.1	2395.3	2483.6	2664.1	2766.7	2791.5
50°	198.2	240.6	697.0	1054.4	1995.5	2232.4	2303.2	2395.3	2579.2	2674.7	2706.6
52.5°	184.0	219.3	594.4	937.6	1885.7	2126.3	2207.7	2303.2	2476.6	2568.6	2589.8
55°	169.9	201.6	505.9	813.7	1772.6	2013.1	2101.6	2193.5	2363.4	2441.2	2455.3
57.5°	162.7	187.5	431.7	697.0	1652.2	1885.7	1984.8	2069.7	2229.0	2289.0	2303.2
60°	152.1	176.9	375.0	597.9	1521.3	1765.4	1850.4	1935.3	2069.7	2119.3	2129.9
62.5°	141.5	169.9	332.6	502.4	1386.9	1623.9	1708.8	1786.7	1899.9	1935.3	1949.4
65°	134.4	162.7	300.7	431.7	1249.0	1475.3	1560.2	1627.5	1719.5	1754.8	1761.9
67.5°	127.4	155.7	276.0	371.5	1111.0	1326.7	1390.4	1454.1	1524.9	1560.2	1563.8
70°	116.8	148.6	254.8	329.0	969.4	1156.9	1210.0	1277.2	1333.8	1351.5	1362.1
72.5°	109.7	138.0	240.6	297.2	824.3	994.2	1043.7	1082.7	1132.2	1149.9	1149.9
75°	99.1	123.8	226.5	265.4	675.7	813.7	856.2	895.1	934.0	941.1	930.5
77.5°	88.5	109.7	194.6	222.9	527.2	643.9	679.3	700.5	732.4	739.4	743.0
80°	74.3	95.5	152.1	173.3	382.1	474.1	498.9	516.6	544.9	544.9	551.9
82.5°	56.6	74.3	109.7	123.8	258.2	325.5	346.7	357.3	375.0	375.0	375.0
85°	35.3	46.0	70.8	81.4	155.7	198.2	212.3	215.8	229.9	233.5	233.5
87.5°	17.7	24.7	46.0	49.5	81.4	102.6	102.6	109.7	109.7	106.1	102.6
90°	11.2	20.1	28.9	31.2	49.0	72.7	84.6	75.2	56.4	42.3	42.3
92.5°	44.5	120.2	196.0	214.9	302.2	418.5	476.7	417.8	300.0	211.6	203.2
95°	106.9	245.6	384.2	418.8	743.6	1176.8	1393.4	1243.4	943.4	718.4	692.9
97.5°	184.9	307.2	429.4	460.1	1001.7	1723.9	2085.1	1990.3	1800.7	1658.5	1610.0
100°	245.0	355.9	466.8	494.5	1095.6	1897.1	2297.9	2304.8	2318.7	2329.0	2271.3
102.5°	296.3	399.7	503.2	529.1	1138.7	1951.6	2358.0	2478.8	2720.3	2901.6	2852.0
105°	383.2	470.8	558.4	580.3	1170.7	1957.8	2351.3	2622.2	3163.7	3569.9	3543.3
107.5°	472.3	554.0	635.6	656.1	1176.6	1870.6	2217.6	2595.4	3350.8	3917.4	3923.8
110°	532.4	606.2	679.9	698.4	1167.6	1793.4	2106.2	2528.5	3373.0	4006.4	4034.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	591.5	661.8	732.0	749.6	1168.1	1726.0	2004.9	2437.1	3301.4	3949.7	3992.2
115°	680.5	745.4	810.2	826.5	1178.8	1648.6	1883.5	2299.8	3132.5	3756.9	3816.0
117.5°	768.5	827.5	886.4	901.1	1200.8	1600.2	1800.0	2175.7	2927.2	3490.8	3556.2
120°	819.8	875.2	930.7	944.6	1218.6	1584.0	1766.6	2109.9	2796.5	3311.4	3375.1
122.5°	869.9	925.9	981.8	995.8	1244.2	1575.4	1741.0	2050.1	2668.4	3132.1	3194.9
125°	946.8	997.8	1048.7	1061.5	1278.7	1568.3	1713.1	1975.7	2500.9	2894.9	2952.6
127.5°	1009.1	1060.6	1112.1	1125.0	1313.2	1564.2	1689.7	1915.2	2366.2	2704.4	2753.1
130°	1042.6	1098.0	1153.4	1167.3	1338.5	1566.7	1680.8	1881.6	2283.1	2584.1	2629.2
132.5°	1077.1	1132.6	1188.0	1201.8	1358.8	1568.2	1672.9	1852.6	2212.1	2481.7	2522.0
135°	1128.4	1178.8	1229.3	1241.9	1381.2	1566.8	1659.6	1810.1	2111.0	2336.8	2371.6
137.5°	1180.7	1230.7	1280.6	1293.1	1414.5	1576.5	1657.4	1784.6	2039.1	2229.9	2258.4
140°	1224.1	1270.2	1316.2	1327.7	1435.0	1578.1	1649.6	1759.4	1979.3	2144.2	2170.8
142.5°	1257.5	1300.1	1342.7	1353.3	1452.0	1583.7	1649.6	1746.1	1939.2	2084.0	2106.9
145°	1308.8	1345.9	1383.0	1392.3	1474.3	1583.8	1638.5	1717.4	1875.3	1993.8	2011.1
147.5°	1360.0	1396.1	1432.3	1441.3	1507.0	1594.7	1638.5	1700.6	1824.9	1918.1	1932.4
150°	1393.4	1426.0	1458.7	1466.9	1524.1	1600.4	1638.5	1691.0	1795.9	1874.6	1886.2
152.5°	1427.9	1452.6	1477.5	1483.6	1535.2	1604.0	1638.5	1683.3	1772.8	1840.0	1848.8
155°	1479.2	1497.5	1515.8	1520.4	1559.8	1612.3	1638.5	1674.1	1745.3	1798.8	1804.6
157.5°	1517.0	1534.9	1552.7	1557.2	1584.3	1620.5	1638.5	1666.2	1721.6	1763.2	1767.3
160°	1542.6	1556.6	1570.4	1573.9	1595.4	1624.1	1638.5	1662.2	1709.7	1745.3	1747.7
162.5°	1568.2	1578.6	1589.0	1591.6	1607.3	1628.0	1638.5	1658.5	1698.6	1728.6	1730.9
165°	1596.1	1605.5	1614.9	1617.2	1624.3	1633.8	1638.5	1652.9	1681.5	1703.0	1705.4
167.5°	1621.7	1626.2	1630.6	1631.8	1637.7	1645.6	1649.6	1659.0	1677.9	1692.0	1692.9
170°	1638.5	1643.0	1647.4	1648.5	1648.8	1649.3	1649.6	1659.0	1677.9	1692.0	1692.0
172.5°	1647.3	1648.3	1649.3	1649.6	1649.6	1649.6	1649.6	1657.0	1671.9	1683.0	1682.1
175°	1659.6	1659.6	1659.6	1659.6	1656.3	1651.8	1649.6	1654.3	1663.7	1670.7	1670.7
177.5°	1659.6	1659.6	1659.6	1659.6	1657.1	1653.6	1651.8	1655.5	1663.0	1668.5	1667.5
180°	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6	1659.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1100.3	1100.3
2.5°	1174.6	1167.5
5°	1510.8	1517.8
7.5°	2034.4	2030.8
10°	2529.7	2561.5
12.5°	2890.6	2897.6
15°	3109.9	3124.1
17.5°	3194.8	3198.3
20°	3198.3	3191.3
22.5°	3159.4	3152.4
25°	3113.5	3109.9
27.5°	3071.0	3074.5
30°	3053.3	3063.9
32.5°	3053.3	3071.0
35°	3060.3	3078.0
37.5°	3056.8	3078.0
40°	3042.7	3067.4
42.5°	3003.8	3021.4
45°	2943.6	2964.8
47.5°	2865.8	2879.9
50°	2766.7	2780.9
52.5°	2642.9	2646.4
55°	2494.2	2508.4
57.5°	2335.1	2338.6
60°	2158.2	2168.8
62.5°	1970.6	1970.6
65°	1772.6	1779.6
67.5°	1567.4	1585.0
70°	1358.6	1362.1
72.5°	1153.4	1153.4
75°	941.1	944.7
77.5°	739.4	739.4
80°	548.4	551.9
82.5°	378.6	385.6
85°	237.1	237.1
87.5°	109.7	99.1
90°	42.3	42.3
92.5°	169.5	135.9
95°	590.9	489.0
97.5°	1416.0	1221.9
100°	2040.1	1808.9
102.5°	2654.0	2456.0
105°	3436.8	3330.4
107.5°	3949.6	3975.3
110°	4145.1	4256.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4162.6	4332.9
115°	4052.1	4288.2
117.5°	3818.1	4080.0
120°	3629.5	3884.0
122.5°	3445.8	3696.8
125°	3183.8	3415.0
127.5°	2948.2	3143.3
130°	2809.3	2989.6
132.5°	2683.4	2844.8
135°	2510.7	2649.8
137.5°	2372.2	2486.1
140°	2277.3	2383.7
142.5°	2198.4	2290.0
145°	2080.4	2149.7
147.5°	1989.8	2047.2
150°	1932.8	1979.3
152.5°	1884.0	1919.1
155°	1827.9	1851.2
157.5°	1783.6	1800.0
160°	1757.1	1766.6
162.5°	1739.8	1748.7
165°	1714.8	1724.2
167.5°	1696.9	1700.8
170°	1692.0	1692.0
172.5°	1678.7	1675.2
175°	1670.7	1670.7
177.5°	1663.6	1659.6
180°	1659.6	1659.6



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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	4.71	5.56	5.71	6.57	7.92	17.90	18.75	18.90	19.76	21.11
	3H	5.42	6.17	6.42	7.20	8.57	19.75	20.50	20.75	21.53	22.90
	4H	5.71	6.43	6.73	7.46	8.83	20.39	21.11	21.41	22.14	23.52
	6H	5.96	6.63	6.99	7.66	9.05	20.83	21.49	21.86	22.52	23.91
	8H	6.03	6.66	7.07	7.71	9.09	20.95	21.58	21.99	22.63	24.01
	12H	6.05	6.65	7.09	7.69	9.10	21.02	21.62	22.06	22.66	24.07
4H	2H	11.93	12.65	12.96	13.68	15.05	18.17	18.89	19.20	19.92	21.30
	3H	13.50	14.10	14.53	15.15	16.54	20.22	20.83	21.26	21.88	23.27
	4H	13.59	14.14	14.63	15.19	16.60	20.99	21.54	22.04	22.59	24.00
	6H	13.60	14.08	14.65	15.15	16.55	21.54	22.01	22.59	23.08	24.49
	8H	13.58	14.02	14.63	15.08	16.51	21.70	22.14	22.75	23.21	24.63
	12H	13.53	13.93	14.61	15.01	16.44	21.80	22.20	22.87	23.27	24.70
8H	4H	15.04	15.48	16.09	16.54	17.97	21.05	21.50	22.11	22.56	23.98
	6H	15.28	15.65	16.36	16.75	18.17	21.68	22.05	22.76	23.16	24.58
	8H	15.30	15.62	16.38	16.71	18.15	21.91	22.23	22.99	23.32	24.76
	12H	15.26	15.55	16.35	16.63	18.11	22.05	22.34	23.14	23.42	24.90
12H	4H	15.18	15.58	16.25	16.66	18.09	21.00	21.41	22.08	22.48	23.91
	6H	15.54	15.86	16.62	16.95	18.39	21.67	21.99	22.75	23.08	24.52
	8H	15.61	15.89	16.70	16.98	18.46	21.90	22.18	22.99	23.27	24.75