

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: P937754

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937754
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

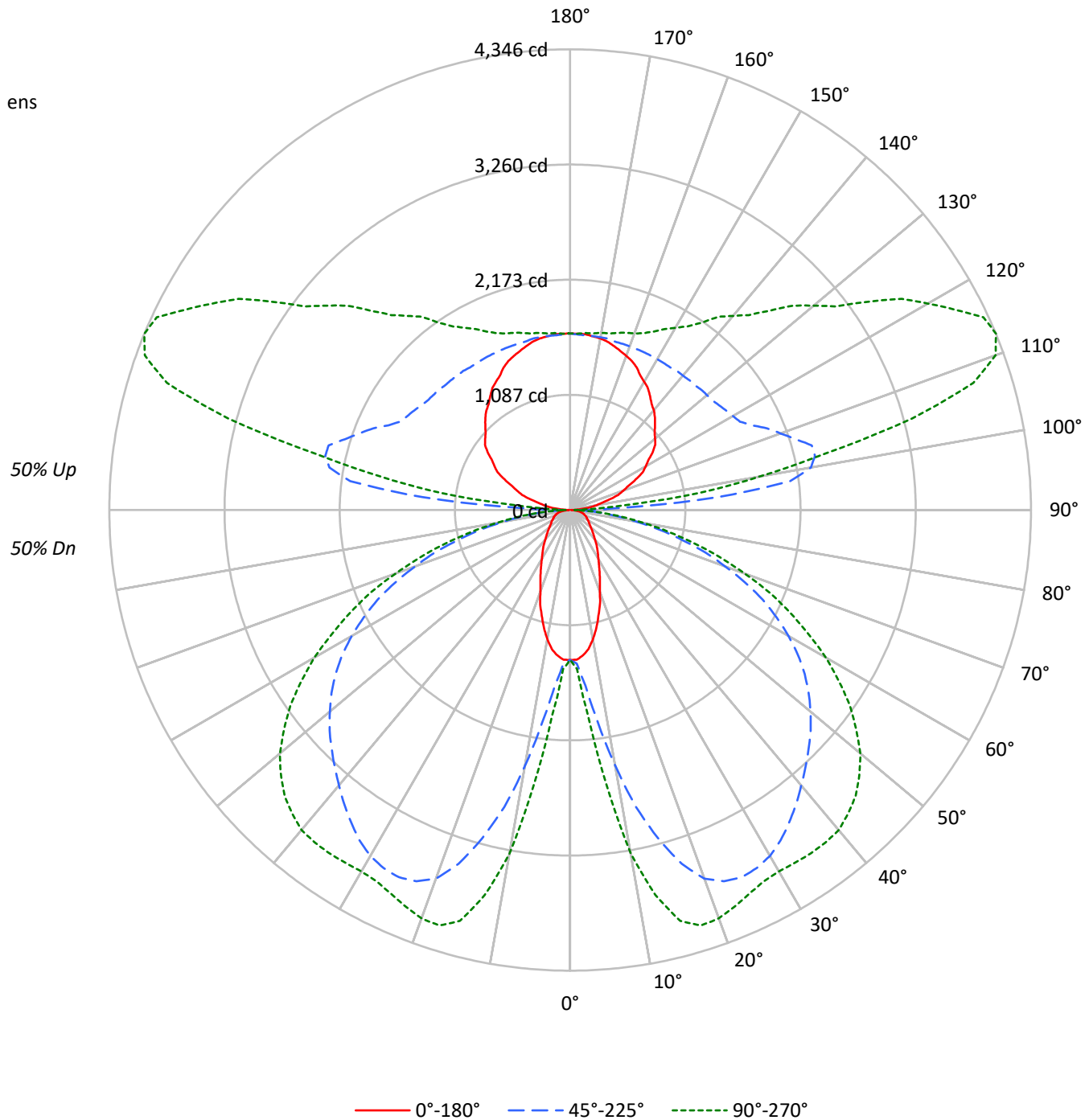
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21732.8 lumens
Efficiency: N/A
Efficacy: 105.3 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): 206.4
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4372	4372	4372
5°	4273	5055	5877
10°	3877	7370	9743
15°	3297	9631	11765
20°	2685	11164	11990
25°	2240	11685	11746
30°	1890	11762	11724
35°	1672	11570	12027
40°	1458	11319	12341
45°	1321	11137	12389
50°	1213	10973	12184
55°	1163	10732	11644
60°	1192	10265	10791
65°	1242	9554	9620
70°	1326	8337	8126
75°	1474	6804	6342
80°	1623	4725	4273
85°	1474	2511	2187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12389 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.9	0.8
10°-20°	810.4	3.7
20°-30°	1417.5	6.5
30°-40°	1824.8	8.4
40°-50°	2038.2	9.4
50°-60°	1952.1	9.0
60°-70°	1547.1	7.1
70°-80°	909.7	4.2
80°-90°	259.1	1.2
90°-100°	811.4	3.7
100°-110°	2133.3	9.8
110°-120°	2212.0	10.2
120°-130°	1774.3	8.2
130°-140°	1392.2	6.4
140°-150°	1068.5	4.9
150°-160°	769.5	3.5
160°-170°	470.8	2.2
170°-180°	159.1	0.7
0°-30°	2410.8	11.1
0°-40°	4235.5	19.5
0°-60°	8225.8	37.8
0°-90°	10941.7	50.3
90°-120°	5156.7	23.7
90°-150°	9391.7	43.2
90°-180°	10791.0	49.7
0°-180°	21732.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1414	1414	1414	1414	1414	
5°	1377	1477	1664	1882	1950	127
15°	1032	1904	3209	3891	4013	287
25°	659	2159	3822	3991	3995	304
35°	445	2064	3600	3804	3954	278
45°	304	1645	3182	3645	3809	236
55°	218	1045	2700	3136	3223	199
65°	173	555	2004	2254	2286	171
75°	127	341	1100	1209	1214	133
85°	46	105	273	300	304	48
90°	11	31	85	42	42	12
95°	107	420	1398	720	490	119
105°	384	582	2358	3581	3340	407
115°	683	829	1889	3768	4301	674
125°	950	1065	1718	2904	3425	843
135°	1132	1246	1665	2344	2658	876
145°	1313	1396	1643	2000	2156	822
155°	1484	1525	1643	1804	1857	682
165°	1601	1622	1643	1708	1729	452
175°	1665	1665	1654	1676	1676	158
180°	1665	1665	1665	1665	1665	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6
2.5°	1413.6	1413.6	1422.7	1427.2	1436.3	1440.8	1450.0	1459.0	1486.3	1490.9	1499.9
5°	1377.2	1395.3	1454.4	1477.2	1540.8	1627.2	1663.6	1722.7	1845.3	1881.8	1904.4
7.5°	1322.6	1363.6	1509.0	1545.4	1704.5	1931.7	2027.2	2154.5	2349.9	2445.4	2522.6
10°	1236.3	1322.6	1581.7	1668.1	1927.2	2272.6	2449.8	2627.1	2922.6	3054.4	3104.4
12.5°	1140.9	1281.7	1659.0	1777.2	2149.9	2654.4	2868.0	3063.5	3399.9	3577.1	3604.3
15°	1031.8	1222.6	1731.7	1904.4	2386.3	2972.6	3208.9	3449.8	3763.4	3890.8	3922.5
17.5°	936.3	1177.2	1799.9	1981.7	2568.0	3258.9	3499.9	3699.8	3954.3	4040.7	4063.5
20°	818.1	1104.5	1845.3	2081.7	2759.0	3468.0	3699.8	3854.3	4027.1	4081.6	4090.7
22.5°	731.7	1027.2	1872.6	2118.0	2886.2	3595.3	3790.8	3913.4	4031.6	4049.8	4054.3
25°	659.0	940.9	1868.1	2159.0	2995.3	3672.6	3822.5	3913.4	3981.6	3990.7	3990.7
27.5°	590.9	845.4	1849.9	2168.1	3077.1	3690.7	3808.9	3872.5	3904.4	3922.5	3922.5
30°	531.8	754.5	1804.4	2149.9	3113.4	3672.6	3768.0	3799.8	3831.7	3858.9	3872.5
32.5°	486.3	668.2	1736.3	2113.6	3118.0	3627.1	3695.3	3713.5	3758.9	3822.5	3845.3
35°	445.4	581.8	1659.0	2063.5	3090.8	3554.4	3599.8	3618.0	3708.9	3804.4	3836.1
37.5°	404.5	518.1	1559.0	1977.2	3049.9	3468.0	3499.9	3531.6	3672.6	3786.2	3822.5
40°	363.6	463.6	1440.8	1881.8	2986.2	3363.5	3390.7	3440.8	3627.1	3758.9	3795.2
42.5°	331.8	418.2	1313.6	1781.8	2904.4	3245.3	3286.2	3358.9	3572.6	3713.5	3754.4
45°	304.5	372.7	1177.2	1645.4	2799.8	3122.6	3181.7	3281.7	3508.9	3645.3	3681.6
47.5°	277.3	340.9	1036.3	1504.5	2686.2	2999.8	3077.1	3190.7	3422.6	3554.4	3586.2
50°	254.5	309.1	895.4	1354.5	2563.5	2868.0	2958.9	3077.1	3313.5	3436.2	3477.1
52.5°	236.4	281.8	763.6	1204.5	2422.6	2731.7	2836.3	2958.9	3181.7	3299.9	3327.1
55°	218.2	259.1	650.0	1045.4	2277.1	2586.2	2699.9	2818.1	3036.2	3136.2	3154.4
57.5°	209.1	240.9	554.6	895.4	2122.6	2422.6	2549.8	2659.0	2863.5	2940.7	2958.9
60°	195.4	227.2	481.8	768.2	1954.5	2268.1	2377.1	2486.3	2659.0	2722.6	2736.3
62.5°	181.8	218.2	427.2	645.4	1781.8	2086.3	2195.3	2295.3	2440.8	2486.3	2504.5
65°	172.7	209.1	386.3	554.6	1604.5	1895.4	2004.4	2090.8	2209.0	2254.4	2263.5
67.5°	163.7	200.0	354.5	477.3	1427.2	1704.5	1786.2	1868.1	1959.0	2004.4	2009.0
70°	150.0	190.9	327.2	422.7	1245.4	1486.3	1554.4	1640.8	1713.5	1736.3	1749.9
72.5°	140.9	177.3	309.1	381.8	1059.1	1277.3	1340.8	1390.9	1454.4	1477.2	1477.2
75°	127.2	159.1	290.9	340.9	868.1	1045.4	1100.0	1149.9	1199.9	1209.0	1195.4
77.5°	113.6	140.9	250.0	286.3	677.2	827.3	872.7	900.0	940.9	949.9	954.5
80°	95.4	122.7	195.4	222.8	490.9	609.1	640.9	663.6	700.0	700.0	709.1
82.5°	72.7	95.4	140.9	159.1	331.8	418.2	445.4	459.0	481.8	481.8	481.8
85°	45.5	59.1	90.9	104.6	200.0	254.5	272.7	277.3	295.5	300.0	300.0
87.5°	22.7	31.8	59.1	63.7	104.6	131.8	131.8	140.9	140.9	136.4	131.8
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	303.2	419.8	478.2	419.1	300.9	212.3	203.9
95°	107.3	246.3	385.3	420.1	745.9	1180.4	1397.6	1247.2	946.3	720.5	694.9
97.5°	185.4	308.1	430.7	461.4	1004.7	1729.1	2091.4	1996.3	1806.1	1663.5	1614.9
100°	245.8	357.0	468.2	496.0	1098.9	1902.8	2304.8	2311.8	2325.7	2336.0	2278.1
102.5°	297.2	400.9	504.7	530.7	1142.1	1957.5	2365.1	2486.3	2728.6	2910.3	2860.6
105°	384.4	472.2	560.1	582.0	1174.2	1963.7	2358.4	2630.1	3173.3	3580.6	3553.9
107.5°	473.7	555.6	637.6	658.1	1180.1	1876.2	2224.3	2603.2	3360.9	3929.2	3935.6
110°	534.1	608.0	682.0	700.5	1171.2	1798.8	2112.6	2536.2	3383.2	4018.5	4046.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	593.2	663.8	734.2	751.9	1171.6	1731.2	2011.0	2444.5	3311.4	3961.6	4004.3
115°	682.6	747.7	812.7	829.0	1182.3	1653.6	1889.2	2306.8	3141.9	3768.3	3827.5
117.5°	770.9	830.0	889.0	903.8	1204.4	1605.0	1805.4	2182.2	2936.0	3501.3	3566.9
120°	822.3	877.9	933.5	947.4	1222.3	1588.7	1771.9	2116.2	2804.9	3321.4	3385.3
122.5°	872.6	928.7	984.8	998.8	1248.0	1580.1	1746.2	2056.3	2676.4	3141.6	3204.5
125°	949.7	1000.8	1051.9	1064.7	1282.5	1573.1	1718.3	1981.7	2508.5	2903.6	2961.5
127.5°	1012.2	1063.8	1115.5	1128.4	1317.2	1568.9	1694.8	1921.0	2373.3	2712.5	2761.4
130°	1045.7	1101.3	1156.9	1170.8	1342.5	1571.5	1685.9	1887.2	2289.9	2591.9	2637.1
132.5°	1080.4	1136.0	1191.6	1205.4	1362.9	1573.0	1678.0	1858.2	2218.8	2489.1	2529.6
135°	1131.8	1182.3	1233.0	1245.6	1385.3	1571.5	1664.7	1815.6	2117.4	2343.8	2378.8
137.5°	1184.2	1234.4	1284.5	1297.0	1418.8	1581.2	1662.4	1790.0	2045.3	2236.7	2265.2
140°	1227.8	1274.0	1320.1	1331.7	1439.3	1582.8	1654.5	1764.7	1985.3	2150.6	2177.3
142.5°	1261.3	1304.0	1346.7	1357.4	1456.4	1588.5	1654.5	1751.4	1945.1	2090.3	2113.2
145°	1312.7	1350.0	1387.2	1396.5	1478.8	1588.6	1643.4	1722.6	1881.0	1999.8	2017.1
147.5°	1364.1	1400.4	1436.6	1445.7	1511.6	1599.5	1643.4	1705.7	1830.4	1923.8	1938.3
150°	1397.6	1430.4	1463.1	1471.4	1528.7	1605.2	1643.4	1696.1	1801.3	1880.2	1891.9
152.5°	1432.2	1457.0	1481.9	1488.1	1539.8	1608.9	1643.4	1688.4	1778.2	1845.6	1854.4
155°	1483.6	1502.0	1520.4	1525.0	1564.5	1617.1	1643.4	1679.2	1750.6	1804.2	1810.1
157.5°	1521.6	1539.5	1557.4	1561.9	1589.1	1625.3	1643.4	1671.2	1726.8	1768.5	1772.6
160°	1547.3	1561.2	1575.1	1578.6	1600.2	1629.0	1643.4	1667.3	1714.9	1750.6	1752.9
162.5°	1573.0	1583.4	1593.8	1596.4	1612.1	1633.0	1643.4	1663.5	1703.7	1733.9	1736.1
165°	1600.9	1610.3	1619.8	1622.1	1629.2	1638.7	1643.4	1657.8	1686.6	1708.2	1710.5
167.5°	1626.6	1631.1	1635.6	1636.7	1642.6	1650.6	1654.5	1664.0	1682.9	1697.1	1698.0
170°	1643.4	1647.9	1652.4	1653.5	1653.8	1654.3	1654.5	1664.0	1682.9	1697.1	1697.1
172.5°	1652.3	1653.3	1654.3	1654.5	1654.5	1654.5	1654.5	1662.0	1676.9	1688.1	1687.2
175°	1664.7	1664.7	1664.7	1664.7	1661.3	1656.8	1654.5	1659.3	1668.7	1675.8	1675.8
177.5°	1664.7	1664.7	1664.7	1664.7	1662.1	1658.6	1656.8	1660.5	1668.0	1673.5	1672.5
180°	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1413.6	1413.6
2.5°	1509.0	1499.9
5°	1940.9	1949.9
7.5°	2613.5	2608.9
10°	3249.8	3290.7
12.5°	3713.5	3722.5
15°	3995.2	4013.4
17.5°	4104.4	4108.9
20°	4108.9	4099.8
22.5°	4058.9	4049.8
25°	3999.8	3995.2
27.5°	3945.3	3949.8
30°	3922.5	3936.1
32.5°	3922.5	3945.3
35°	3931.6	3954.3
37.5°	3927.1	3954.3
40°	3908.9	3940.7
42.5°	3858.9	3881.6
45°	3781.6	3808.9
47.5°	3681.6	3699.8
50°	3554.4	3572.6
52.5°	3395.3	3399.9
55°	3204.4	3222.6
57.5°	2999.8	3004.4
60°	2772.6	2786.2
62.5°	2531.7	2531.7
65°	2277.1	2286.3
67.5°	2013.6	2036.3
70°	1745.4	1749.9
72.5°	1481.7	1481.7
75°	1209.0	1213.6
77.5°	949.9	949.9
80°	704.5	709.1
82.5°	486.3	495.5
85°	304.5	304.5
87.5°	140.9	127.2
90°	42.4	42.4
92.5°	170.0	136.3
95°	592.7	490.5
97.5°	1420.2	1225.6
100°	2046.2	1814.3
102.5°	2662.0	2463.5
105°	3447.1	3340.4
107.5°	3961.5	3987.3
110°	4157.6	4268.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4175.1	4345.9
115°	4064.4	4301.2
117.5°	3829.6	4092.3
120°	3640.4	3895.7
122.5°	3456.2	3707.9
125°	3193.4	3425.3
127.5°	2957.1	3152.8
130°	2817.8	2998.6
132.5°	2691.5	2853.4
135°	2518.2	2657.8
137.5°	2379.4	2493.6
140°	2284.1	2390.8
142.5°	2205.1	2296.9
145°	2086.7	2156.2
147.5°	1995.8	2053.4
150°	1938.6	1985.3
152.5°	1889.6	1924.9
155°	1833.4	1856.8
157.5°	1789.0	1805.4
160°	1762.4	1771.9
162.5°	1745.1	1754.0
165°	1720.0	1729.4
167.5°	1702.0	1705.9
170°	1697.1	1697.1
172.5°	1683.7	1680.2
175°	1675.8	1675.8
177.5°	1668.6	1664.7
180°	1664.7	1664.7



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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	6.17	7.07	7.11	8.04	9.30	19.36	20.26	20.31	21.23	22.49
	3H	6.88	7.69	7.83	8.67	9.95	21.21	22.02	22.16	23.00	24.28
	4H	7.18	7.95	8.15	8.93	10.22	21.86	22.63	22.83	23.61	24.90
	6H	7.43	8.14	8.41	9.13	10.43	22.30	23.01	23.28	23.99	25.30
	8H	7.50	8.18	8.49	9.18	10.48	22.42	23.10	23.41	24.10	25.40
	12H	7.52	8.16	8.51	9.16	10.49	22.49	23.14	23.49	24.13	25.46
4H	2H	13.40	14.17	14.37	15.15	16.44	19.64	20.41	20.62	21.39	22.68
	3H	14.97	15.61	15.95	16.62	17.93	21.69	22.34	22.68	23.35	24.66
	4H	15.06	15.65	16.06	16.66	17.99	22.47	23.06	23.46	24.06	25.39
	6H	15.08	15.59	16.08	16.61	17.94	23.01	23.52	24.02	24.55	25.88
	8H	15.05	15.53	16.06	16.55	17.90	23.18	23.65	24.19	24.67	26.02
	12H	15.01	15.44	16.04	16.48	17.83	23.28	23.71	24.30	24.74	26.09
8H	4H	16.52	16.99	17.53	18.01	19.36	22.53	23.01	23.54	24.03	25.37
	6H	16.76	17.15	17.79	18.22	19.56	23.16	23.56	24.20	24.62	25.96
	8H	16.78	17.13	17.82	18.17	19.53	23.39	23.74	24.43	24.78	26.14
	12H	16.75	17.06	17.80	18.10	19.50	23.54	23.84	24.58	24.89	26.29
12H	4H	16.66	17.09	17.69	18.13	19.48	22.48	22.91	23.51	23.95	25.30
	6H	17.02	17.37	18.06	18.42	19.78	23.15	23.50	24.19	24.54	25.91
	8H	17.09	17.40	18.14	18.44	19.84	23.38	23.69	24.43	24.73	26.14