

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: P937555

Luminaire Tested: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937555
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-93050-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

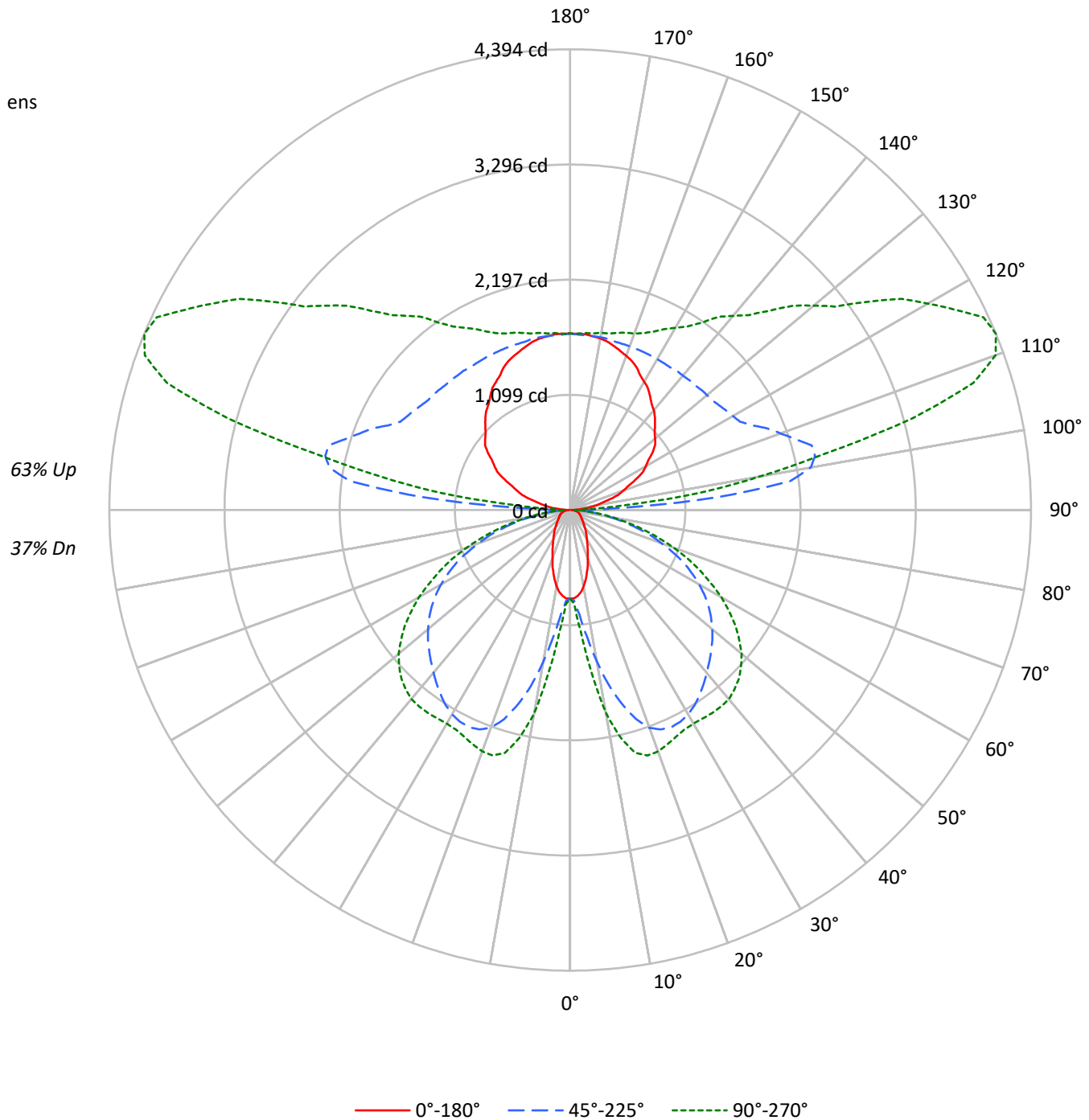
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17449.7 lumens
Efficiency: N/A
Efficacy: 118.2 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

TEST NUMBER: P937555
CATALOG NUMBER: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-4000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2612	2612	2612
5°	2553	3020	3511
10°	2316	4403	5821
15°	1969	5754	7029
20°	1604	6670	7164
25°	1338	6981	7018
30°	1129	7027	7005
35°	999	6913	7186
40°	871	6763	7373
45°	789	6654	7402
50°	725	6556	7280
55°	694	6412	6957
60°	712	6133	6447
65°	742	5708	5747
70°	792	4981	4856
75°	881	4065	3789
80°	969	2823	2553
85°	881	1500	1306

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7402 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	0.6
10°-20°	484.2	2.8
20°-30°	846.9	4.9
30°-40°	1090.2	6.2
40°-50°	1217.7	7.0
50°-60°	1166.3	6.7
60°-70°	924.3	5.3
70°-80°	543.5	3.1
80°-90°	157.4	0.9
90°-100°	820.3	4.7
100°-110°	2156.7	12.4
110°-120°	2236.3	12.8
120°-130°	1793.8	10.3
130°-140°	1407.5	8.1
140°-150°	1080.3	6.2
150°-160°	778.0	4.5
160°-170°	476.0	2.7
170°-180°	160.8	0.9
0°-30°	1440.3	8.3
0°-40°	2530.6	14.5
0°-60°	4914.6	28.2
0°-90°	6539.8	37.5
90°-120°	5213.4	29.9
90°-150°	9495.0	54.4
90°-180°	10910.0	62.5
0°-180°	17449.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	823	882	994	1124	1165	76
15°	616	1138	1917	2324	2398	172
25°	394	1290	2284	2384	2387	181
35°	266	1233	2151	2273	2363	166
45°	182	983	1901	2178	2276	141
55°	130	625	1613	1874	1925	119
65°	103	331	1198	1347	1366	102
75°	76	204	657	722	725	80
85°	27	62	163	179	182	29
90°	11	32	86	43	43	11
95°	108	425	1413	728	496	120
105°	389	588	2384	3620	3377	412
115°	690	838	1910	3810	4348	682
125°	960	1076	1737	2936	3463	852
135°	1144	1259	1683	2370	2687	885
145°	1327	1412	1662	2022	2180	831
155°	1500	1542	1662	1824	1877	689
165°	1618	1640	1662	1727	1748	457
175°	1683	1683	1673	1694	1694	160
180°	1683	1683	1683	1683	1683	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	844.5	844.5	844.5	844.5	844.5	844.5	844.5	844.5	844.5	844.5	844.5
2.5°	844.5	844.5	849.9	852.7	858.1	860.8	866.2	871.7	888.0	890.7	896.1
5°	822.8	833.7	869.0	882.5	920.5	972.1	993.9	1029.3	1102.6	1124.3	1137.9
7.5°	790.2	814.6	901.5	923.3	1018.3	1154.2	1211.2	1287.2	1404.0	1461.0	1507.2
10°	738.6	790.2	945.0	996.6	1151.5	1357.8	1463.7	1569.6	1746.1	1824.9	1854.8
12.5°	681.6	765.8	991.2	1061.8	1284.5	1585.9	1713.6	1830.3	2031.3	2137.2	2153.5
15°	616.4	730.5	1034.7	1137.9	1425.7	1776.0	1917.2	2061.1	2248.5	2324.5	2343.6
17.5°	559.4	703.3	1075.4	1184.0	1534.3	1947.1	2091.0	2210.5	2362.6	2414.2	2427.7
20°	488.8	659.9	1102.6	1243.8	1648.4	2072.0	2210.5	2302.8	2406.0	2438.6	2444.0
22.5°	437.2	613.7	1118.9	1265.5	1724.4	2148.0	2264.8	2338.1	2408.7	2419.6	2422.3
25°	393.7	562.1	1116.2	1289.9	1789.6	2194.2	2283.8	2338.1	2378.9	2384.3	2384.3
27.5°	353.0	505.1	1105.3	1295.4	1838.5	2205.1	2275.7	2313.7	2332.7	2343.6	2343.6
30°	317.7	450.8	1078.1	1284.5	1860.2	2194.2	2251.2	2270.2	2289.2	2305.5	2313.7
32.5°	290.6	399.2	1037.4	1262.8	1862.9	2167.0	2207.8	2218.6	2245.8	2283.8	2297.4
35°	266.1	347.6	991.2	1232.9	1846.6	2123.6	2150.8	2161.6	2215.9	2272.9	2292.0
37.5°	241.7	309.6	931.4	1181.3	1822.2	2072.0	2091.0	2110.0	2194.2	2262.1	2283.8
40°	217.2	277.0	860.8	1124.3	1784.2	2009.5	2025.8	2055.7	2167.0	2245.8	2267.5
42.5°	198.2	249.8	784.8	1064.6	1735.3	1938.9	1963.4	2006.8	2134.5	2218.6	2243.1
45°	181.9	222.7	703.3	983.0	1672.8	1865.6	1900.9	1960.7	2096.4	2177.9	2199.6
47.5°	165.6	203.7	619.1	898.8	1604.9	1792.3	1838.5	1906.4	2044.8	2123.6	2142.6
50°	152.1	184.7	535.0	809.2	1531.6	1713.6	1767.9	1838.5	1979.7	2053.0	2077.4
52.5°	141.2	168.4	456.2	719.6	1447.4	1632.1	1694.6	1767.9	1900.9	1971.5	1987.8
55°	130.3	154.8	388.3	624.6	1360.5	1545.2	1613.1	1683.7	1814.0	1873.8	1884.6
57.5°	124.9	143.9	331.3	535.0	1268.2	1447.4	1523.5	1588.6	1710.8	1757.0	1767.9
60°	116.8	135.8	287.8	458.9	1167.7	1355.1	1420.3	1485.5	1588.6	1626.7	1634.8
62.5°	108.6	130.3	255.3	385.6	1064.6	1246.5	1311.7	1371.4	1458.3	1485.5	1496.3
65°	103.2	124.9	230.8	331.3	958.6	1132.4	1197.6	1249.2	1319.8	1347.0	1352.4
67.5°	97.8	119.5	211.8	285.1	852.7	1018.3	1067.3	1116.2	1170.5	1197.6	1200.3
70°	89.6	114.1	195.5	252.5	744.0	888.0	928.7	980.3	1023.7	1037.4	1045.6
72.5°	84.2	105.9	184.7	228.1	632.7	763.1	801.1	830.9	869.0	882.5	882.5
75°	76.0	95.0	173.8	203.7	518.7	624.6	657.1	687.0	716.9	722.3	714.2
77.5°	67.9	84.2	149.4	171.1	404.6	494.2	521.4	537.7	562.1	567.5	570.3
80°	57.0	73.3	116.8	133.1	293.3	363.9	382.9	396.5	418.2	418.2	423.6
82.5°	43.4	57.0	84.2	95.0	198.2	249.8	266.1	274.3	287.8	287.8	287.8
85°	27.2	35.3	54.3	62.5	119.5	152.1	162.9	165.6	176.5	179.2	179.2
87.5°	13.6	19.0	35.3	38.0	62.5	78.7	78.7	84.2	84.2	81.5	78.7
90°	11.3	20.4	29.3	31.6	49.7	73.8	85.8	76.3	57.2	42.9	42.9
92.5°	45.2	121.9	198.8	218.0	306.5	424.4	483.4	423.7	304.2	214.6	206.1
95°	108.4	249.0	389.6	424.7	754.1	1193.4	1413.0	1260.9	956.7	728.5	702.6
97.5°	187.5	311.5	435.5	466.5	1015.8	1748.1	2114.4	2018.2	1826.0	1681.8	1632.6
100°	248.5	360.9	473.3	501.5	1111.0	1923.7	2330.2	2337.2	2351.2	2361.7	2303.2
102.5°	300.4	405.3	510.2	536.5	1154.7	1979.0	2391.2	2513.6	2758.6	2942.3	2892.1
105°	388.6	477.4	566.3	588.4	1187.1	1985.3	2384.4	2659.0	3208.2	3620.0	3593.0
107.5°	478.9	561.7	644.6	665.3	1193.1	1896.9	2248.8	2631.8	3397.9	3972.4	3978.9
110°	539.9	614.7	689.5	708.2	1184.0	1818.6	2135.8	2564.0	3420.4	4062.7	4090.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	599.8	671.1	742.3	760.2	1184.5	1750.2	2033.1	2471.4	3347.8	4005.2	4048.3
115°	690.1	755.9	821.6	838.1	1195.4	1671.7	1910.0	2332.1	3176.5	3809.7	3869.6
117.5°	779.3	839.1	898.8	913.8	1217.6	1622.7	1825.3	2206.2	2968.3	3539.8	3606.2
120°	831.3	887.5	943.8	957.8	1235.7	1606.2	1791.4	2139.5	2835.8	3358.0	3422.5
122.5°	882.2	938.9	995.6	1009.8	1261.7	1597.5	1765.4	2078.9	2705.9	3176.1	3239.8
125°	960.1	1011.8	1063.5	1076.4	1296.6	1590.4	1737.2	2003.5	2536.1	2935.5	2994.1
127.5°	1023.3	1075.5	1127.7	1140.8	1331.7	1586.2	1713.5	1942.1	2399.4	2742.4	2791.8
130°	1057.2	1113.4	1169.6	1183.7	1357.3	1588.7	1704.4	1908.0	2315.1	2620.4	2666.2
132.5°	1092.3	1148.5	1204.7	1218.7	1377.9	1590.3	1696.5	1878.7	2243.2	2516.5	2557.4
135°	1144.2	1195.4	1246.6	1259.4	1400.6	1588.8	1683.0	1835.6	2140.7	2369.6	2404.9
137.5°	1197.3	1247.9	1298.6	1311.3	1434.4	1598.6	1680.7	1809.7	2067.7	2261.3	2290.1
140°	1241.3	1288.0	1334.7	1346.3	1455.1	1600.2	1672.7	1784.2	2007.1	2174.3	2201.3
142.5°	1275.2	1318.4	1361.5	1372.3	1472.4	1605.9	1672.7	1770.7	1966.5	2113.3	2136.5
145°	1327.1	1364.8	1402.5	1411.9	1495.1	1606.0	1661.5	1741.5	1901.7	2021.8	2039.3
147.5°	1379.1	1415.8	1452.4	1461.6	1528.2	1617.1	1661.5	1724.5	1850.5	1945.0	1959.6
150°	1413.0	1446.1	1479.2	1487.5	1545.6	1622.9	1661.5	1714.7	1821.1	1900.9	1912.7
152.5°	1448.0	1473.1	1498.2	1504.5	1556.8	1626.6	1661.5	1707.0	1797.7	1865.9	1874.8
155°	1499.9	1518.5	1537.1	1541.8	1581.7	1634.9	1661.5	1697.6	1769.9	1824.1	1830.0
157.5°	1538.3	1556.4	1574.5	1579.1	1606.6	1643.2	1661.5	1689.6	1745.8	1788.0	1792.1
160°	1564.3	1578.4	1592.4	1596.0	1617.8	1646.9	1661.5	1685.6	1733.7	1769.9	1772.2
162.5°	1590.3	1600.8	1611.4	1614.0	1629.8	1650.9	1661.5	1681.8	1722.4	1752.9	1755.2
165°	1618.5	1628.0	1637.6	1640.0	1647.1	1656.7	1661.5	1676.1	1705.1	1727.0	1729.3
167.5°	1644.5	1649.0	1653.5	1654.7	1660.7	1668.8	1672.7	1682.3	1701.4	1715.7	1716.7
170°	1661.5	1666.0	1670.6	1671.7	1672.0	1672.5	1672.7	1682.3	1701.4	1715.7	1715.7
172.5°	1670.5	1671.5	1672.5	1672.7	1672.7	1672.7	1672.7	1680.3	1695.4	1706.7	1705.8
175°	1683.0	1683.0	1683.0	1683.0	1679.5	1675.0	1672.7	1677.5	1687.0	1694.2	1694.2
177.5°	1683.0	1683.0	1683.0	1683.0	1680.3	1676.8	1675.0	1678.8	1686.3	1691.9	1690.9
180°	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0	1683.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	844.5	844.5
2.5°	901.5	896.1
5°	1159.6	1165.0
7.5°	1561.5	1558.8
10°	1941.7	1966.1
12.5°	2218.6	2224.1
15°	2387.0	2397.9
17.5°	2452.2	2454.9
20°	2454.9	2449.5
22.5°	2425.0	2419.6
25°	2389.7	2387.0
27.5°	2357.1	2359.8
30°	2343.6	2351.7
32.5°	2343.6	2357.1
35°	2349.0	2362.6
37.5°	2346.3	2362.6
40°	2335.4	2354.4
42.5°	2305.5	2319.1
45°	2259.4	2275.7
47.5°	2199.6	2210.5
50°	2123.6	2134.5
52.5°	2028.6	2031.3
55°	1914.5	1925.4
57.5°	1792.3	1795.0
60°	1656.5	1664.7
62.5°	1512.6	1512.6
65°	1360.5	1366.0
67.5°	1203.0	1216.6
70°	1042.8	1045.6
72.5°	885.2	885.2
75°	722.3	725.0
77.5°	567.5	567.5
80°	420.9	423.6
82.5°	290.6	296.0
85°	181.9	181.9
87.5°	84.2	76.0
90°	42.9	42.9
92.5°	171.9	137.8
95°	599.2	495.8
97.5°	1435.9	1239.1
100°	2068.7	1834.3
102.5°	2691.3	2490.6
105°	3485.1	3377.2
107.5°	4005.1	4031.1
110°	4203.3	4315.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4221.0	4393.7
115°	4109.1	4348.5
117.5°	3871.7	4137.3
120°	3680.5	3938.5
122.5°	3494.2	3748.7
125°	3228.5	3463.0
127.5°	2989.7	3187.4
130°	2848.8	3031.6
132.5°	2721.1	2884.7
135°	2545.9	2687.1
137.5°	2405.6	2521.1
140°	2309.2	2417.1
142.5°	2229.3	2322.2
145°	2109.7	2179.9
147.5°	2017.8	2076.0
150°	1959.9	2007.1
152.5°	1910.4	1946.1
155°	1853.6	1877.2
157.5°	1808.7	1825.3
160°	1781.8	1791.4
162.5°	1764.2	1773.3
165°	1738.9	1748.4
167.5°	1720.7	1724.7
170°	1715.7	1715.7
172.5°	1702.2	1698.7
175°	1694.2	1694.2
177.5°	1686.9	1683.0
180°	1683.0	1683.0



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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	3.08	3.86	4.13	4.92	6.36	16.27	17.06	17.32	18.12	19.55
	3H	3.78	4.48	4.84	5.55	7.01	18.11	18.81	19.17	19.88	21.34
	4H	4.07	4.74	5.14	5.81	7.27	18.75	19.42	19.83	20.49	21.96
	6H	4.32	4.94	5.40	6.01	7.48	19.19	19.80	20.27	20.88	22.35
	8H	4.38	4.97	5.47	6.06	7.53	19.31	19.89	20.39	20.98	22.45
	12H	4.40	4.96	5.49	6.04	7.53	19.37	19.93	20.47	21.02	22.51
4H	2H	10.29	10.96	11.37	12.03	13.49	16.54	17.20	17.61	18.28	19.74
	3H	11.85	12.41	12.94	13.51	14.99	18.58	19.14	19.67	20.24	21.71
	4H	11.94	12.46	13.04	13.55	15.04	19.35	19.86	20.44	20.95	22.44
	6H	11.95	12.39	13.05	13.50	14.99	19.88	20.33	20.99	21.44	22.93
	8H	11.92	12.34	13.03	13.44	14.95	20.05	20.46	21.15	21.56	23.07
	12H	11.88	12.25	13.00	13.37	14.88	20.14	20.51	21.26	21.63	23.14
8H	4H	13.39	13.80	14.49	14.90	16.41	19.40	19.81	20.50	20.92	22.42
	6H	13.62	13.97	14.75	15.11	16.61	20.03	20.37	21.15	21.52	23.02
	8H	13.64	13.94	14.77	15.07	16.59	20.25	20.55	21.38	21.68	23.20
	12H	13.61	13.87	14.74	14.99	16.55	20.39	20.66	21.53	21.78	23.34
12H	4H	13.53	13.90	14.64	15.02	16.53	19.35	19.72	20.47	20.84	22.35
	6H	13.88	14.18	15.01	15.31	16.83	20.01	20.31	21.14	21.44	22.96
	8H	13.95	14.21	15.08	15.33	16.89	20.24	20.50	21.37	21.63	23.19