

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: P938016

Luminaire Tested: SQ4-FB-125U-100D-835-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938016
REPORT IS A COMBINATION OF REPORTS P933615 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-100D-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

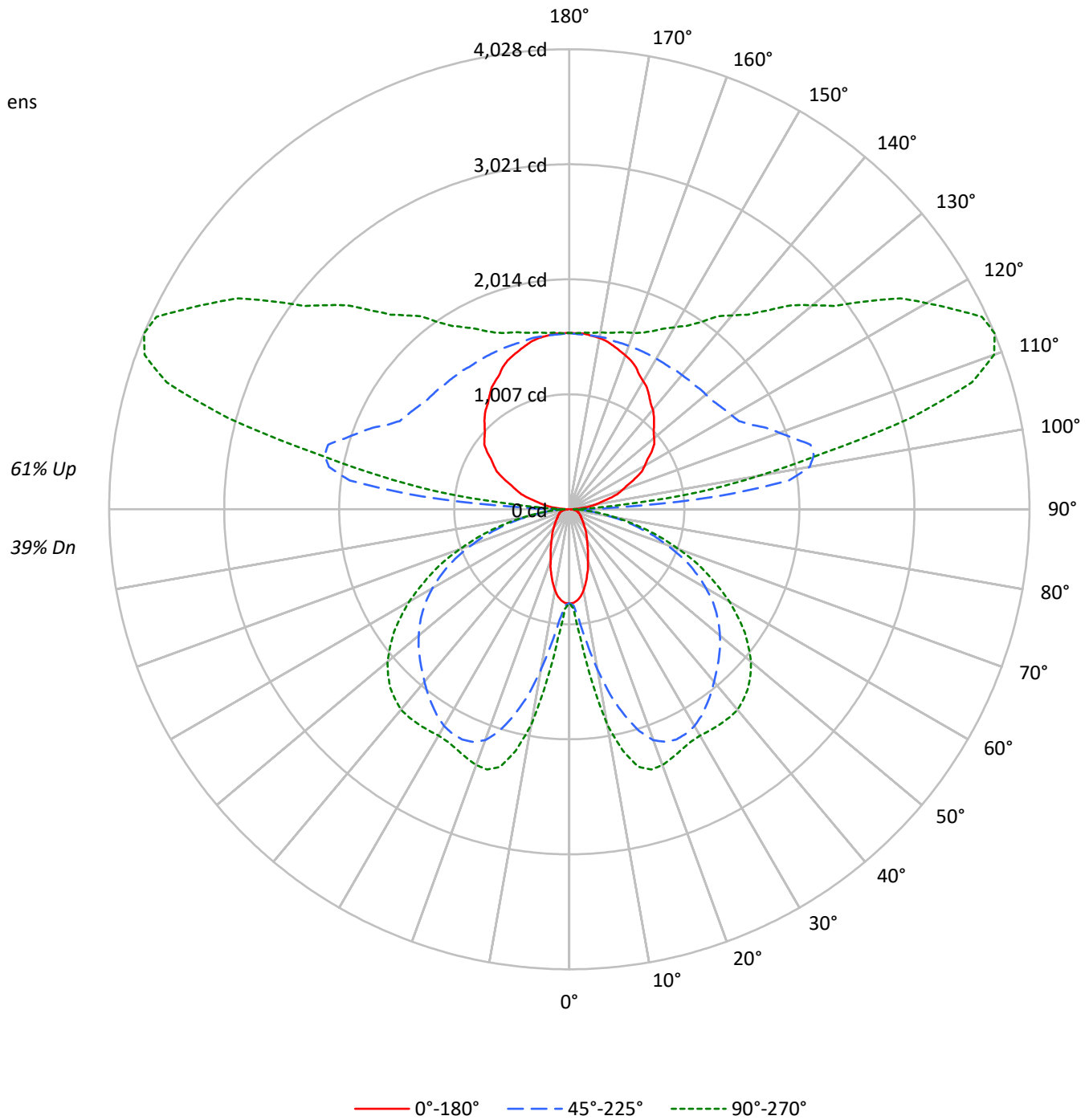
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16366.0 lumens
Efficiency: N/A
Efficacy: 127.1 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): 128.8
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				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	95	95	95	95	77	77	77	61	61	61	46	46	46	39			
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32			
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26			
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21			
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18			
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15			
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11			
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10			
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9			
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3813	3813	3813
5°	3725	4407	5125
10°	3379	6424	8497
15°	2872	8393	10260
20°	2338	9726	10457
25°	1950	10178	10244
30°	1645	10243	10225
35°	1454	10073	10489
40°	1267	9851	10763
45°	1148	9690	10805
50°	1053	9544	10626
55°	1008	9330	10155
60°	1032	8921	9411
65°	1073	8298	8390
70°	1144	7237	7087
75°	1267	5900	5531
80°	1385	4092	3727
85°	1230	2172	1908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10805 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.3	0.6
10°-20°	471.2	2.9
20°-30°	824.2	5.0
30°-40°	1061.0	6.5
40°-50°	1185.0	7.2
50°-60°	1135.0	6.9
60°-70°	899.5	5.5
70°-80°	528.9	3.2
80°-90°	152.8	0.9
90°-100°	752.1	4.6
100°-110°	1977.3	12.1
110°-120°	2050.2	12.5
120°-130°	1644.5	10.0
130°-140°	1290.4	7.9
140°-150°	990.4	6.1
150°-160°	713.3	4.4
160°-170°	436.4	2.7
170°-180°	147.4	0.9
0°-30°	1401.7	8.6
0°-40°	2462.6	15.0
0°-60°	4782.7	29.2
0°-90°	6363.9	38.9
90°-120°	4779.7	29.2
90°-150°	8705.0	53.2
90°-180°	10002.0	61.1
0°-180°	16366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	822	822	822	822	822	
5°	801	859	967	1094	1134	74
15°	600	1107	1866	2262	2334	167
25°	383	1255	2222	2320	2323	176
35°	259	1200	2093	2212	2299	162
45°	177	957	1850	2119	2215	137
55°	127	608	1570	1823	1874	116
65°	100	322	1165	1311	1329	100
75°	74	198	640	703	706	77
85°	26	61	159	174	177	28
90°	10	29	79	39	39	10
95°	99	389	1295	668	455	110
105°	356	540	2186	3319	3096	378
115°	633	768	1751	3493	3987	625
125°	880	987	1593	2691	3175	781
135°	1049	1155	1543	2172	2464	812
145°	1217	1294	1523	1854	1998	762
155°	1375	1414	1523	1672	1721	632
165°	1484	1504	1523	1583	1603	419
175°	1543	1543	1534	1553	1553	146
180°	1543	1543	1543	1543	1543	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	821.9	821.9	821.9	821.9	821.9	821.9	821.9	821.9	821.9	821.9	821.9
2.5°	821.9	821.9	827.2	829.8	835.1	837.7	843.0	848.3	864.2	866.8	872.1
5°	800.7	811.3	845.7	858.9	895.9	946.1	967.2	1001.6	1072.9	1094.1	1107.3
7.5°	769.0	792.8	877.4	898.5	991.0	1123.1	1178.6	1252.6	1366.3	1421.8	1466.7
10°	718.8	769.0	919.7	969.9	1120.5	1321.3	1424.4	1527.5	1699.2	1775.9	1804.9
12.5°	663.3	745.2	964.6	1033.3	1250.0	1543.3	1667.5	1781.2	1976.7	2079.8	2095.6
15°	599.9	710.9	1006.9	1107.3	1387.4	1728.3	1865.7	2005.8	2188.1	2262.1	2280.6
17.5°	544.4	684.5	1046.5	1152.2	1493.1	1894.8	2034.9	2151.1	2299.1	2349.3	2362.6
20°	475.7	642.2	1072.9	1210.3	1604.1	2016.4	2151.1	2241.0	2341.4	2373.1	2378.4
22.5°	425.5	597.2	1088.8	1231.5	1678.1	2090.4	2204.0	2275.3	2344.1	2354.6	2357.3
25°	383.2	547.0	1086.1	1255.3	1741.5	2135.3	2222.5	2275.3	2315.0	2320.3	2320.3
27.5°	343.5	491.5	1075.6	1260.6	1789.1	2145.9	2214.6	2251.6	2270.1	2280.6	2280.6
30°	309.2	438.7	1049.1	1250.0	1810.2	2135.3	2190.8	2209.3	2227.8	2243.6	2251.6
32.5°	282.8	388.5	1009.5	1228.8	1812.9	2108.9	2148.5	2159.1	2185.5	2222.5	2235.7
35°	259.0	338.3	964.6	1199.8	1797.0	2066.6	2093.0	2103.6	2156.4	2211.9	2230.4
37.5°	235.2	301.3	906.4	1149.6	1773.2	2016.4	2034.9	2053.4	2135.3	2201.3	2222.5
40°	211.4	269.6	837.7	1094.1	1736.2	1955.6	1971.4	2000.5	2108.9	2185.5	2206.6
42.5°	192.9	243.1	763.7	1035.9	1688.7	1886.9	1910.7	1952.9	2077.1	2159.1	2182.9
45°	177.1	216.7	684.5	956.6	1627.9	1815.5	1849.9	1908.0	2040.1	2119.4	2140.6
47.5°	161.2	198.2	602.5	874.7	1561.8	1744.2	1789.1	1855.2	1989.9	2066.6	2085.1
50°	148.0	179.7	520.6	787.5	1490.5	1667.5	1720.4	1789.1	1926.5	1997.9	2021.6
52.5°	137.4	163.8	444.0	700.3	1408.5	1588.2	1649.0	1720.4	1849.9	1918.6	1934.4
55°	126.8	150.6	377.9	607.8	1324.0	1503.7	1569.7	1638.5	1765.3	1823.4	1834.0
57.5°	121.6	140.1	322.4	520.6	1234.1	1408.5	1482.5	1546.0	1664.9	1709.8	1720.4
60°	113.6	132.1	280.1	446.6	1136.4	1318.7	1382.1	1445.5	1546.0	1583.0	1590.9
62.5°	105.7	126.8	248.4	375.3	1035.9	1213.0	1276.4	1334.6	1419.1	1445.5	1456.1
65°	100.4	121.6	224.6	322.4	932.9	1102.0	1165.4	1215.6	1284.3	1310.8	1316.1
67.5°	95.1	116.3	206.1	277.5	829.8	991.0	1038.6	1086.1	1139.0	1165.4	1168.1
70°	87.2	111.0	190.3	245.8	724.1	864.2	903.8	954.0	996.3	1009.5	1017.4
72.5°	81.9	103.1	179.7	222.0	615.7	742.6	779.6	808.7	845.7	858.9	858.9
75°	74.0	92.5	169.1	198.2	504.8	607.8	639.5	668.6	697.7	703.0	695.0
77.5°	66.1	81.9	145.3	166.5	393.8	481.0	507.4	523.2	547.0	552.3	555.0
80°	55.5	71.4	113.6	129.5	285.4	354.1	372.6	385.8	407.0	407.0	412.3
82.5°	42.3	55.5	81.9	92.5	192.9	243.1	259.0	266.9	280.1	280.1	280.1
85°	26.4	34.4	52.9	60.8	116.3	148.0	158.6	161.2	171.8	174.4	174.4
87.5°	13.2	18.5	34.4	37.0	60.8	76.6	76.6	81.9	81.9	79.3	76.6
90°	10.4	18.7	26.9	29.0	45.6	67.7	78.7	69.9	52.4	39.3	39.3
92.5°	41.4	111.8	182.3	199.9	281.0	389.1	443.2	388.4	278.9	196.7	188.9
95°	99.4	228.3	357.2	389.4	691.4	1094.1	1295.4	1156.0	877.1	667.9	644.2
97.5°	171.9	285.6	399.3	427.7	931.3	1602.8	1938.5	1850.4	1674.1	1541.9	1496.8
100°	227.8	330.9	434.0	459.8	1018.6	1763.7	2136.3	2142.7	2155.6	2165.3	2111.6
102.5°	275.4	371.6	467.8	491.9	1058.7	1814.4	2192.2	2304.5	2529.1	2697.5	2651.5
105°	356.2	437.7	519.1	539.5	1088.3	1820.1	2186.0	2437.7	2941.2	3318.8	3294.1
107.5°	439.1	515.0	590.9	609.9	1093.8	1739.1	2061.7	2412.9	3115.2	3641.9	3647.9
110°	495.0	563.6	632.2	649.3	1085.6	1667.3	1958.2	2350.8	3135.9	3724.7	3750.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	549.9	615.2	680.6	696.9	1085.9	1604.6	1863.9	2265.7	3069.2	3671.9	3711.5
115°	632.7	693.0	753.2	768.3	1095.9	1532.7	1751.1	2138.1	2912.2	3492.8	3547.7
117.5°	714.5	769.3	824.0	837.7	1116.3	1487.7	1673.4	2022.7	2721.3	3245.3	3306.2
120°	762.1	813.7	865.2	878.1	1132.8	1472.5	1642.3	1961.5	2599.8	3078.6	3137.7
122.5°	808.7	860.7	912.7	925.7	1156.6	1464.5	1618.5	1905.9	2480.8	2911.9	2970.2
125°	880.2	927.6	975.0	986.8	1188.7	1458.0	1592.6	1836.8	2325.1	2691.3	2745.0
127.5°	938.2	986.1	1033.9	1045.9	1220.9	1454.2	1570.9	1780.5	2199.8	2514.2	2559.5
130°	969.2	1020.8	1072.3	1085.2	1244.3	1456.5	1562.6	1749.2	2122.5	2402.4	2444.3
132.5°	1001.3	1052.9	1104.4	1117.3	1263.3	1458.0	1555.3	1722.4	2056.5	2307.1	2344.6
135°	1049.0	1095.9	1142.9	1154.6	1284.0	1456.6	1542.9	1682.8	1962.6	2172.5	2204.8
137.5°	1097.6	1144.1	1190.6	1202.2	1315.1	1465.6	1540.8	1659.1	1895.7	2073.1	2099.6
140°	1138.0	1180.8	1223.6	1234.3	1334.1	1467.1	1533.6	1635.8	1840.1	1993.4	2018.1
142.5°	1169.1	1208.7	1248.2	1258.1	1349.9	1472.4	1533.6	1623.3	1802.8	1937.4	1958.7
145°	1216.7	1251.2	1285.8	1294.4	1370.7	1472.4	1523.2	1596.6	1743.5	1853.6	1869.7
147.5°	1264.4	1298.0	1331.6	1340.0	1401.1	1482.5	1523.2	1581.0	1696.5	1783.2	1796.5
150°	1295.4	1325.8	1356.2	1363.8	1416.9	1487.8	1523.2	1572.0	1669.6	1742.8	1753.6
152.5°	1327.5	1350.5	1373.5	1379.3	1427.3	1491.2	1523.2	1564.9	1648.2	1710.7	1718.9
155°	1375.2	1392.2	1409.2	1413.5	1450.1	1498.8	1523.2	1556.4	1622.7	1672.4	1677.8
157.5°	1410.4	1426.9	1443.5	1447.6	1472.8	1506.4	1523.2	1549.0	1600.5	1639.2	1643.0
160°	1434.2	1447.1	1460.0	1463.2	1483.2	1509.9	1523.2	1545.3	1589.5	1622.6	1624.8
162.5°	1458.0	1467.6	1477.3	1479.7	1494.2	1513.5	1523.2	1541.8	1579.1	1607.1	1609.2
165°	1483.9	1492.7	1501.4	1503.6	1510.1	1518.8	1523.2	1536.6	1563.3	1583.3	1585.5
167.5°	1507.7	1511.8	1516.0	1517.0	1522.5	1529.9	1533.6	1542.3	1559.8	1572.9	1573.8
170°	1523.2	1527.4	1531.6	1532.6	1532.9	1533.4	1533.6	1542.3	1559.8	1572.9	1572.9
172.5°	1531.5	1532.4	1533.4	1533.6	1533.6	1533.6	1533.6	1540.5	1554.3	1564.7	1563.9
175°	1542.9	1542.9	1542.9	1542.9	1539.8	1535.7	1533.6	1538.0	1546.7	1553.3	1553.3
177.5°	1542.9	1542.9	1542.9	1542.9	1540.5	1537.3	1535.7	1539.1	1546.0	1551.2	1550.3
180°	1542.9	1542.9	1542.9	1542.9	1542.9	1542.9	1542.9	1542.9	1542.9	1542.9	1542.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	821.9	821.9
2.5°	877.4	872.1
5°	1128.4	1133.7
7.5°	1519.5	1516.9
10°	1889.5	1913.3
12.5°	2159.1	2164.4
15°	2322.9	2333.5
17.5°	2386.3	2389.0
20°	2389.0	2383.7
22.5°	2359.9	2354.6
25°	2325.6	2322.9
27.5°	2293.8	2296.5
30°	2280.6	2288.6
32.5°	2280.6	2293.8
35°	2285.9	2299.1
37.5°	2283.3	2299.1
40°	2272.7	2291.2
42.5°	2243.6	2256.8
45°	2198.7	2214.6
47.5°	2140.6	2151.1
50°	2066.6	2077.1
52.5°	1974.1	1976.7
55°	1863.1	1873.7
57.5°	1744.2	1746.8
60°	1612.0	1620.0
62.5°	1472.0	1472.0
65°	1324.0	1329.3
67.5°	1170.7	1183.9
70°	1014.8	1017.4
72.5°	861.5	861.5
75°	703.0	705.6
77.5°	552.3	552.3
80°	409.6	412.3
82.5°	282.8	288.1
85°	177.1	177.1
87.5°	81.9	74.0
90°	39.3	39.3
92.5°	157.6	126.3
95°	549.4	454.6
97.5°	1316.4	1136.0
100°	1896.6	1681.7
102.5°	2467.4	2283.3
105°	3195.1	3096.2
107.5°	3671.8	3695.7
110°	3853.6	3956.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3869.8	4028.1
115°	3767.2	3986.7
117.5°	3549.6	3793.1
120°	3374.3	3610.8
122.5°	3203.6	3436.9
125°	2960.0	3174.9
127.5°	2740.9	2922.2
130°	2611.8	2779.3
132.5°	2494.7	2644.7
135°	2334.2	2463.5
137.5°	2205.4	2311.3
140°	2117.1	2216.0
142.5°	2043.8	2129.0
145°	1934.1	1998.5
147.5°	1849.9	1903.3
150°	1796.9	1840.1
152.5°	1751.5	1784.2
155°	1699.4	1721.0
157.5°	1658.2	1673.4
160°	1633.5	1642.3
162.5°	1617.5	1625.8
165°	1594.2	1603.0
167.5°	1577.5	1581.2
170°	1572.9	1572.9
172.5°	1560.6	1557.4
175°	1553.3	1553.3
177.5°	1546.6	1542.9
180°	1542.9	1542.9



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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	4.55	5.34	5.59	6.39	7.81	17.72	18.52	18.76	19.57	20.99
	3H	5.25	5.96	6.30	7.02	8.46	19.56	20.27	20.61	21.33	22.77
	4H	5.54	6.22	6.60	7.28	8.73	20.20	20.88	21.26	21.94	23.39
	6H	5.79	6.41	6.86	7.48	8.94	20.63	21.25	21.70	22.32	23.78
	8H	5.85	6.45	6.93	7.53	8.98	20.75	21.34	21.82	22.42	23.88
	12H	5.87	6.44	6.95	7.51	8.99	20.81	21.38	21.89	22.45	23.93
4H	2H	11.75	12.43	12.82	13.49	14.94	17.99	18.67	19.06	19.73	21.18
	3H	13.31	13.88	14.39	14.97	16.43	20.03	20.60	21.11	21.69	23.14
	4H	13.41	13.93	14.49	15.01	16.49	20.79	21.32	21.88	22.39	23.87
	6H	13.41	13.86	14.50	14.96	16.44	21.33	21.78	22.42	22.88	24.35
	8H	13.39	13.81	14.48	14.90	16.39	21.49	21.91	22.58	23.00	24.49
	12H	13.34	13.72	14.45	14.83	16.32	21.58	21.96	22.69	23.07	24.56
8H	4H	14.85	15.26	15.94	16.36	17.85	20.85	21.27	21.94	22.36	23.85
	6H	15.08	15.43	16.20	16.57	18.05	21.47	21.82	22.59	22.96	24.44
	8H	15.10	15.41	16.22	16.52	18.03	21.69	22.00	22.81	23.12	24.62
	12H	15.07	15.33	16.19	16.45	17.99	21.84	22.10	22.96	23.22	24.76
12H	4H	14.99	15.37	16.09	16.47	17.97	20.80	21.18	21.91	22.29	23.78
	6H	15.34	15.65	16.46	16.77	18.27	21.46	21.76	22.58	22.88	24.39
	8H	15.41	15.68	16.53	16.79	18.33	21.68	21.95	22.81	23.07	24.61