

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: P938276

Luminaire Tested: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938276
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

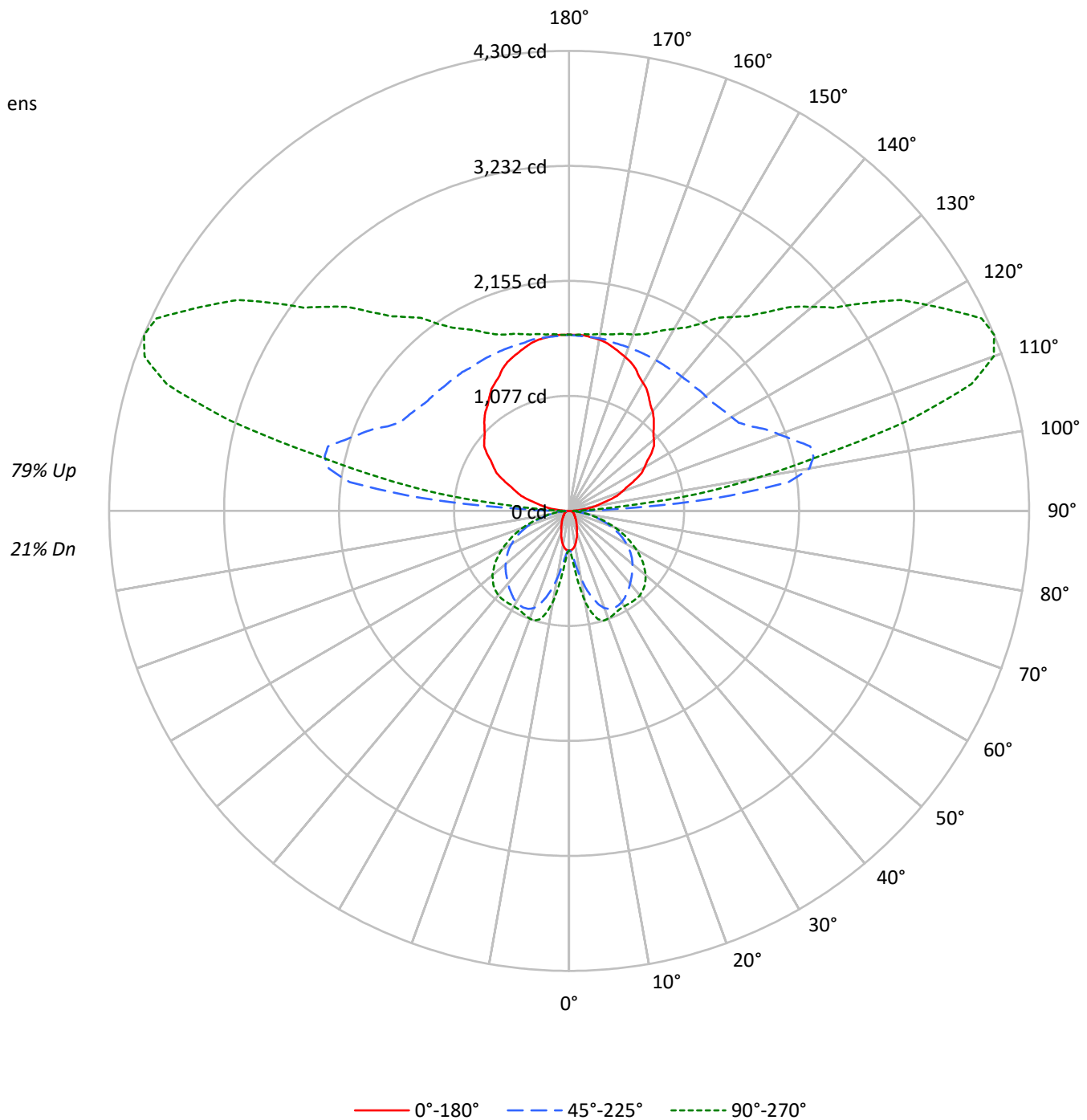
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13571.3 lumens
Efficiency: N/A
Efficacy: 122.0 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): 111.2
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: P938276
CATALOG NUMBER: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





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CATALOG NUMBER: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1719	1719	1719
5°	1679	1986	2310
10°	1523	2896	3830
15°	1294	3783	4624
20°	1054	4384	4713
25°	879	4587	4617
30°	741	4616	4609
35°	655	4540	4728
40°	571	4440	4851
45°	517	4367	4870
50°	474	4302	4789
55°	455	4205	4577
60°	465	4021	4241
65°	484	3740	3781
70°	515	3261	3195
75°	572	2659	2493
80°	624	1844	1680
85°	554	979	860

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4870 cd/sqm



TEST NUMBER: P938276

CATALOG NUMBER: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	0.4
10°-20°	212.4	1.6
20°-30°	371.5	2.7
30°-40°	478.2	3.5
40°-50°	534.1	3.9
50°-60°	511.5	3.8
60°-70°	405.4	3.0
70°-80°	238.4	1.8
80°-90°	72.5	0.5
90°-100°	804.5	5.9
100°-110°	2115.2	15.6
110°-120°	2193.2	16.2
120°-130°	1759.2	13.0
130°-140°	1380.3	10.2
140°-150°	1059.5	7.8
150°-160°	763.0	5.6
160°-170°	466.8	3.4
170°-180°	157.7	1.2
0°-30°	631.7	4.7
0°-40°	1109.9	8.2
0°-60°	2155.6	15.9
0°-90°	2871.9	21.2
90°-120°	5112.9	37.7
90°-150°	9311.9	68.6
90°-180°	10699.0	78.8
0°-180°	13571.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	370	370	370	370	370	
5°	361	387	436	493	511	33
15°	270	499	841	1020	1052	75
25°	173	566	1002	1046	1047	80
35°	117	541	943	997	1036	73
45°	80	431	834	955	998	62
55°	57	274	708	822	844	52
65°	45	145	525	591	599	45
75°	33	89	288	317	318	35
85°	12	27	72	79	80	13
90°	11	31	84	42	42	10
95°	106	416	1386	714	486	118
105°	381	577	2338	3550	3312	404
115°	677	822	1873	3736	4265	668
125°	942	1056	1704	2879	3396	836
135°	1122	1235	1650	2324	2635	868
145°	1302	1385	1629	1983	2138	815
155°	1471	1512	1629	1789	1841	676
165°	1587	1608	1629	1694	1715	448
175°	1650	1650	1640	1662	1662	157
180°	1650	1650	1650	1650	1650	



TEST NUMBER: P938276

CATALOG NUMBER: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4	370.4
2.5°	370.4	370.4	372.8	374.0	376.3	377.6	380.0	382.4	389.5	390.6	393.0
5°	360.9	365.7	381.1	387.1	403.8	426.4	435.9	451.4	483.6	493.1	499.1
7.5°	346.6	357.3	395.4	404.9	446.7	506.2	531.2	564.6	615.7	640.8	661.0
10°	323.9	346.6	414.5	437.2	505.0	595.5	642.0	688.5	765.8	800.4	813.5
12.5°	299.0	335.8	434.8	465.7	563.3	695.6	751.6	802.8	890.9	937.4	944.5
15°	270.4	320.4	453.8	499.1	625.3	779.0	840.9	904.0	986.2	1019.5	1027.9
17.5°	245.4	308.5	471.7	519.3	672.9	854.0	917.1	969.5	1036.2	1058.9	1064.8
20°	214.4	289.4	483.6	545.5	723.0	908.8	969.5	1010.0	1055.3	1069.6	1072.0
22.5°	191.7	269.2	490.7	555.0	756.3	942.2	993.3	1025.6	1056.5	1061.2	1062.4
25°	172.7	246.5	489.6	565.7	784.9	962.4	1001.7	1025.6	1043.4	1045.8	1045.8
27.5°	154.9	221.6	484.8	568.1	806.4	967.1	998.1	1014.8	1023.2	1027.9	1027.9
30°	139.3	197.8	472.9	563.3	815.9	962.4	987.4	995.7	1004.1	1011.3	1014.8
32.5°	127.4	175.1	455.0	553.8	817.0	950.4	968.4	973.1	985.0	1001.7	1007.6
35°	116.7	152.5	434.8	540.7	809.9	931.4	943.3	948.1	971.9	997.0	1005.2
37.5°	106.0	135.8	408.6	518.1	799.2	908.8	917.1	925.5	962.4	992.2	1001.7
40°	95.3	121.5	377.6	493.1	782.5	881.4	888.5	901.7	950.4	985.0	994.6
42.5°	86.9	109.6	344.2	466.9	761.1	850.4	861.2	880.2	936.2	973.1	983.8
45°	79.8	97.7	308.5	431.1	733.7	818.3	833.7	859.9	919.5	955.2	964.7
47.5°	72.6	89.3	271.6	394.3	703.9	786.1	806.4	836.1	896.9	931.4	939.8
50°	66.7	81.0	234.6	354.9	671.8	751.6	775.4	806.4	868.3	900.4	911.2
52.5°	61.9	73.9	200.1	315.6	634.8	715.8	743.3	775.4	833.7	864.7	871.8
55°	57.2	67.9	170.3	273.9	596.7	677.7	707.5	738.5	795.6	821.8	826.6
57.5°	54.8	63.1	145.3	234.6	556.2	634.8	668.2	696.8	750.4	770.6	775.4
60°	51.2	59.6	126.3	201.3	512.2	594.3	622.9	651.5	696.8	713.4	717.1
62.5°	47.7	57.2	112.0	169.2	466.9	546.7	575.2	601.5	639.6	651.5	656.3
65°	45.3	54.8	101.2	145.3	420.5	496.7	525.3	547.9	578.9	590.8	593.2
67.5°	42.9	52.4	92.9	125.0	374.0	446.7	468.1	489.6	513.4	525.3	526.4
70°	39.3	50.0	85.8	110.7	326.3	389.5	407.3	430.0	449.1	455.0	458.6
72.5°	36.9	46.4	81.0	100.1	277.5	334.7	351.4	364.4	381.1	387.1	387.1
75°	33.4	41.6	76.2	89.3	227.5	273.9	288.2	301.3	314.4	316.8	313.3
77.5°	29.7	36.9	65.5	75.0	177.5	216.8	228.7	235.9	246.5	248.9	250.1
80°	25.0	32.1	51.2	58.3	128.7	159.6	167.9	173.9	183.5	183.5	185.8
82.5°	19.1	25.0	36.9	41.6	86.9	109.6	116.7	120.3	126.3	126.3	126.3
85°	11.9	15.5	23.8	27.4	52.4	66.7	71.5	72.6	77.4	78.6	78.6
87.5°	5.9	8.3	15.5	16.7	27.4	34.5	34.5	36.9	36.9	35.7	34.5
90°	11.1	20.0	28.8	31.0	48.8	72.4	84.2	74.9	56.1	42.1	42.1
92.5°	44.3	119.6	195.0	213.8	300.6	416.3	474.1	415.5	298.4	210.5	202.1
95°	106.4	244.2	382.0	416.5	739.5	1170.3	1385.7	1236.5	938.3	714.5	689.1
97.5°	183.9	305.5	427.1	457.5	996.2	1714.6	2073.7	1979.4	1790.8	1649.4	1601.2
100°	243.7	354.0	464.2	491.9	1089.7	1886.6	2285.2	2292.1	2305.9	2316.2	2258.7
102.5°	294.6	397.6	500.4	526.1	1132.5	1940.8	2345.0	2465.2	2705.4	2885.6	2836.4
105°	381.0	468.2	555.4	577.1	1164.2	1946.9	2338.4	2607.7	3146.3	3550.2	3523.8
107.5°	469.7	550.9	632.1	652.4	1170.1	1860.4	2205.4	2581.1	3332.4	3895.8	3902.2
110°	529.5	602.9	676.2	694.5	1161.2	1783.5	2094.7	2514.6	3354.5	3984.5	4012.0



TEST NUMBER: P938276

CATALOG NUMBER: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	588.2	658.1	728.0	745.5	1161.6	1716.4	1993.8	2423.6	3283.2	3927.9	3970.2
115°	676.8	741.3	805.8	821.9	1172.3	1639.5	1873.1	2287.1	3115.2	3736.3	3795.0
117.5°	764.3	822.9	881.5	896.2	1194.1	1591.4	1790.0	2163.7	2911.0	3471.5	3536.6
120°	815.3	870.4	925.6	939.3	1211.9	1575.1	1756.8	2098.3	2781.1	3293.2	3356.5
122.5°	865.1	920.8	976.4	990.3	1237.3	1566.7	1731.3	2038.8	2653.7	3114.8	3177.3
125°	941.5	992.3	1043.0	1055.7	1271.6	1559.6	1703.6	1964.8	2487.1	2878.9	2936.3
127.5°	1003.6	1054.8	1106.0	1118.8	1306.0	1555.6	1680.4	1904.6	2353.1	2689.5	2738.0
130°	1036.8	1092.0	1147.1	1160.9	1331.1	1558.0	1671.5	1871.1	2270.4	2569.9	2614.7
132.5°	1071.2	1126.3	1181.5	1195.2	1351.4	1559.7	1663.8	1842.4	2199.8	2467.9	2508.1
135°	1122.1	1172.3	1222.6	1235.1	1373.6	1558.2	1650.4	1800.2	2099.5	2324.0	2358.5
137.5°	1174.2	1223.9	1273.6	1286.0	1406.8	1567.8	1648.3	1774.8	2027.8	2217.6	2245.9
140°	1217.4	1263.2	1308.9	1320.4	1427.1	1569.4	1640.5	1749.8	1968.4	2132.4	2158.8
142.5°	1250.6	1292.9	1335.3	1345.9	1444.1	1575.0	1640.5	1736.5	1928.5	2072.5	2095.2
145°	1301.5	1338.5	1375.4	1384.7	1466.3	1575.0	1629.4	1707.9	1865.0	1982.8	2000.0
147.5°	1352.5	1388.5	1424.4	1433.4	1498.8	1585.9	1629.4	1691.2	1814.7	1907.4	1921.7
150°	1385.7	1418.2	1450.7	1458.8	1515.6	1591.5	1629.4	1681.6	1785.9	1864.3	1875.8
152.5°	1420.1	1444.7	1469.4	1475.5	1526.8	1595.2	1629.4	1674.0	1763.0	1829.9	1838.6
155°	1471.1	1489.3	1507.5	1512.0	1551.2	1603.3	1629.4	1664.8	1735.8	1789.0	1794.7
157.5°	1508.7	1526.5	1544.1	1548.6	1575.5	1611.5	1629.4	1657.0	1712.2	1753.5	1757.6
160°	1534.2	1548.0	1561.7	1565.2	1586.6	1615.1	1629.4	1653.0	1700.3	1735.8	1738.1
162.5°	1559.7	1570.0	1580.4	1582.9	1598.4	1619.1	1629.4	1649.4	1689.2	1719.2	1721.4
165°	1587.3	1596.6	1606.0	1608.3	1615.4	1624.7	1629.4	1643.7	1672.3	1693.7	1696.0
167.5°	1612.8	1617.2	1621.7	1622.8	1628.7	1636.6	1640.5	1649.8	1668.6	1682.6	1683.6
170°	1629.4	1633.8	1638.3	1639.4	1639.8	1640.2	1640.5	1649.8	1668.6	1682.6	1682.6
172.5°	1638.3	1639.2	1640.2	1640.5	1640.5	1640.5	1640.5	1647.9	1662.6	1673.7	1672.8
175°	1650.4	1650.4	1650.4	1650.4	1647.2	1642.7	1640.5	1645.2	1654.5	1661.5	1661.5
177.5°	1650.4	1650.4	1650.4	1650.4	1647.9	1644.4	1642.7	1646.4	1653.8	1659.3	1658.3
180°	1650.4	1650.4	1650.4	1650.4	1650.4	1650.4	1650.4	1650.4	1650.4	1650.4	1650.4



TEST NUMBER: P938276

CATALOG NUMBER: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	370.4	370.4
2.5°	395.4	393.0
5°	508.6	511.0
7.5°	684.8	683.7
10°	851.6	862.3
12.5°	973.1	975.5
15°	1047.0	1051.7
17.5°	1075.5	1076.7
20°	1076.7	1074.3
22.5°	1063.6	1061.2
25°	1048.1	1047.0
27.5°	1033.8	1035.1
30°	1027.9	1031.5
32.5°	1027.9	1033.8
35°	1030.3	1036.2
37.5°	1029.1	1036.2
40°	1024.3	1032.7
42.5°	1011.3	1017.2
45°	991.0	998.1
47.5°	964.7	969.5
50°	931.4	936.2
52.5°	889.7	890.9
55°	839.7	844.5
57.5°	786.1	787.3
60°	726.6	730.1
62.5°	663.4	663.4
65°	596.7	599.1
67.5°	527.6	533.6
70°	457.4	458.6
72.5°	388.3	388.3
75°	316.8	318.0
77.5°	248.9	248.9
80°	184.6	185.8
82.5°	127.4	129.8
85°	79.8	79.8
87.5°	36.9	33.4
90°	42.1	42.1
92.5°	168.6	135.2
95°	587.7	486.3
97.5°	1408.1	1215.1
100°	2028.8	1798.9
102.5°	2639.4	2442.5
105°	3417.9	3312.1
107.5°	3927.8	3953.4
110°	4122.3	4232.6



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CATALOG NUMBER: SQ4-FB-150U-050D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4139.6	4308.9
115°	4029.8	4264.6
117.5°	3797.1	4057.5
120°	3609.5	3862.5
122.5°	3426.9	3676.5
125°	3166.3	3396.2
127.5°	2932.0	3125.9
130°	2793.9	2973.1
132.5°	2668.5	2829.1
135°	2496.9	2635.2
137.5°	2359.1	2472.4
140°	2264.7	2370.5
142.5°	2186.3	2277.5
145°	2069.0	2137.9
147.5°	1978.8	2035.9
150°	1922.2	1968.4
152.5°	1873.6	1908.6
155°	1817.9	1841.0
157.5°	1773.8	1790.0
160°	1747.5	1756.8
162.5°	1730.2	1739.1
165°	1705.4	1714.7
167.5°	1687.6	1691.5
170°	1682.6	1682.6
172.5°	1669.4	1666.0
175°	1661.5	1661.5
177.5°	1654.3	1650.4
180°	1650.4	1650.4



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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	0.00	0.00	0.48	1.13	2.76	12.49	13.15	13.66	14.31	15.94
	3H	0.00	0.60	1.17	1.76	3.40	14.31	14.91	15.49	16.07	17.72
	4H	0.29	0.86	1.47	2.02	3.67	14.95	15.52	16.13	16.68	18.33
	6H	0.53	1.05	1.72	2.21	3.87	15.37	15.89	16.56	17.05	18.71
	8H	0.59	1.09	1.78	2.26	3.92	15.48	15.98	16.68	17.16	18.81
	12H	0.60	1.07	1.80	2.24	3.92	15.55	16.02	16.74	17.19	18.86
4H	2H	6.50	7.07	7.69	8.23	9.88	12.74	13.31	13.93	14.47	16.12
	3H	8.05	8.52	9.25	9.71	11.37	14.77	15.24	15.96	16.43	18.09
	4H	8.14	8.57	9.33	9.75	11.43	15.52	15.96	16.72	17.14	18.81
	6H	8.14	8.51	9.33	9.71	11.37	16.05	16.43	17.25	17.62	19.29
	8H	8.11	8.46	9.30	9.64	11.33	16.21	16.56	17.41	17.75	19.43
	12H	8.05	8.37	9.27	9.57	11.26	16.29	16.61	17.51	17.81	19.50
8H	4H	9.56	9.91	10.76	11.10	12.79	15.57	15.92	16.77	17.10	18.79
	6H	9.80	10.08	11.01	11.32	13.00	16.19	16.48	17.41	17.71	19.39
	8H	9.81	10.06	11.03	11.27	12.97	16.40	16.65	17.63	17.86	19.56
	12H	9.77	9.99	11.00	11.20	12.93	16.54	16.76	17.77	17.96	19.70
12H	4H	9.70	10.01	10.91	11.21	12.90	15.51	15.83	16.72	17.03	18.72
	6H	10.05	10.30	11.28	11.51	13.21	16.17	16.42	17.39	17.63	19.33
	8H	10.11	10.33	11.34	11.54	13.27	16.39	16.61	17.61	17.81	19.54