

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: P938392

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938392
REPORT IS A COMBINATION OF REPORTS P933646 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

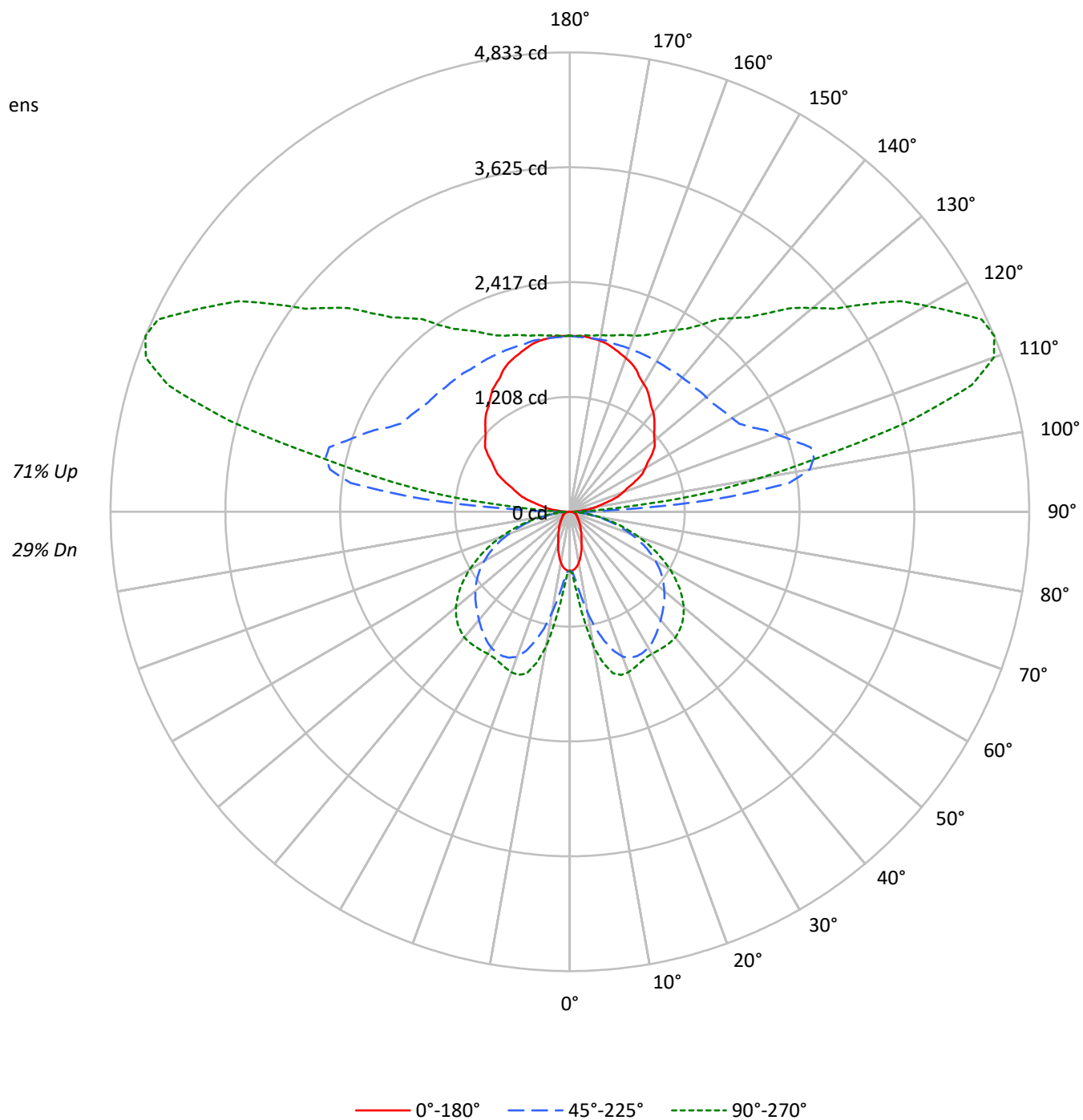
Lumens per Lamp: N/A
Luminaire Lumens: 16800.6 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 127.2
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

TEST NUMBER: P938392

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-2700K

Luminous Intensity Polar Plot



TEST NUMBER: P938392

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29		
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23		
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19		
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16		
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13		
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11		
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10		
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8		
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7		
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6		
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2874	2874	2874
5°	2808	3322	3864
10°	2547	4843	6405
15°	2165	6327	7734
20°	1763	7332	7883
25°	1470	7673	7723
30°	1240	7721	7708
35°	1096	7593	7907
40°	955	7426	8113
45°	865	7304	8145
50°	794	7195	8010
55°	760	7034	7655
60°	778	6724	7095
65°	809	6255	6324
70°	862	5455	5342
75°	956	4448	4169
80°	1043	3085	2810
85°	927	1636	1438

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8145 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	0.5
10°-20°	355.2	2.1
20°-30°	621.3	3.7
30°-40°	799.8	4.8
40°-50°	893.3	5.3
50°-60°	855.6	5.1
60°-70°	678.0	4.0
70°-80°	398.7	2.4
80°-90°	117.8	0.7
90°-100°	902.4	5.4
100°-110°	2372.4	14.1
110°-120°	2459.9	14.6
120°-130°	1973.1	11.7
130°-140°	1548.2	9.2
140°-150°	1188.3	7.1
150°-160°	855.8	5.1
160°-170°	523.6	3.1
170°-180°	176.9	1.1
0°-30°	1056.6	6.3
0°-40°	1856.4	11.0
0°-60°	3605.3	21.5
0°-90°	4799.8	28.6
90°-120°	5734.7	34.1
90°-150°	10444.4	62.2
90°-180°	12001.0	71.4
0°-180°	16800.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	604	647	729	825	855	56
15°	452	835	1406	1705	1759	126
25°	289	946	1675	1749	1751	133
35°	195	904	1578	1667	1733	122
45°	134	721	1394	1598	1669	103
55°	96	458	1183	1375	1412	87
65°	76	243	878	988	1002	75
75°	56	149	482	530	532	58
85°	20	46	120	132	134	21
90°	12	35	94	47	47	12
95°	119	467	1554	801	545	132
105°	427	647	2623	3982	3715	453
115°	759	922	2101	4191	4783	750
125°	1056	1184	1911	3229	3809	938
135°	1258	1385	1851	2607	2956	974
145°	1460	1553	1828	2224	2398	915
155°	1650	1696	1828	2006	2065	758
165°	1780	1804	1828	1900	1923	502
175°	1851	1851	1840	1864	1864	176
180°	1851	1851	1851	1851	1851	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5
2.5°	619.5	619.5	623.5	625.5	629.5	631.5	635.4	639.4	651.4	653.4	657.4
5°	603.6	611.5	637.4	647.4	675.3	713.1	729.1	755.0	808.8	824.7	834.6
7.5°	579.7	597.6	661.3	677.3	747.0	846.6	888.4	944.2	1029.9	1071.7	1105.6
10°	541.8	579.7	693.2	731.1	844.6	996.0	1073.7	1151.5	1281.0	1338.7	1360.6
12.5°	500.0	561.7	727.1	778.9	942.2	1163.4	1257.1	1342.7	1490.1	1567.8	1579.8
15°	452.2	535.8	759.0	834.6	1045.8	1302.9	1406.5	1512.0	1649.5	1705.3	1719.2
17.5°	410.4	515.9	788.8	868.5	1125.5	1428.4	1533.9	1621.6	1733.1	1771.0	1780.9
20°	358.6	484.1	808.8	912.3	1209.2	1520.0	1621.6	1689.3	1765.0	1788.9	1792.9
22.5°	320.7	450.2	820.7	928.3	1265.0	1575.8	1661.4	1715.2	1767.0	1775.0	1777.0
25°	288.8	412.3	818.7	946.2	1312.8	1609.6	1675.4	1715.2	1745.1	1749.1	1749.1
27.5°	259.0	370.5	810.7	950.2	1348.7	1617.6	1669.4	1697.3	1711.2	1719.2	1719.2
30°	233.1	330.7	790.8	942.2	1364.6	1609.6	1651.5	1665.4	1679.4	1691.3	1697.3
32.5°	213.1	292.8	760.9	926.3	1366.6	1589.7	1619.6	1627.6	1647.5	1675.4	1685.3
35°	195.2	255.0	727.1	904.4	1354.7	1557.8	1577.8	1585.7	1625.6	1667.4	1681.3
37.5°	177.3	227.1	683.3	866.5	1336.7	1520.0	1533.9	1547.9	1609.6	1659.4	1675.4
40°	159.4	203.2	631.5	824.7	1308.8	1474.2	1486.1	1508.0	1589.7	1647.5	1663.4
42.5°	145.4	183.3	575.7	780.9	1273.0	1422.4	1440.3	1472.2	1565.8	1627.6	1645.5
45°	133.5	163.3	515.9	721.1	1227.2	1368.6	1394.5	1438.3	1537.9	1597.7	1613.6
47.5°	121.5	149.4	454.2	659.4	1177.4	1314.8	1348.7	1398.5	1500.1	1557.8	1571.8
50°	111.6	135.5	392.4	593.6	1123.5	1257.1	1296.9	1348.7	1452.3	1506.1	1524.0
52.5°	103.6	123.5	334.7	527.9	1061.7	1197.3	1243.1	1296.9	1394.5	1446.3	1458.2
55°	95.6	113.5	284.9	458.2	998.0	1133.5	1183.3	1235.1	1330.8	1374.6	1382.5
57.5°	91.6	105.6	243.0	392.4	930.3	1061.7	1117.5	1165.4	1255.1	1288.9	1296.9
60°	85.7	99.6	211.2	336.6	856.6	994.0	1041.8	1089.6	1165.4	1193.3	1199.3
62.5°	79.7	95.6	187.2	282.9	780.9	914.3	962.1	1006.0	1069.7	1089.6	1097.6
65°	75.7	91.6	169.3	243.0	703.2	830.7	878.5	916.3	968.1	988.0	992.0
67.5°	71.7	87.6	155.4	209.2	625.5	747.0	782.9	818.7	858.6	878.5	880.5
70°	65.7	83.7	143.4	185.3	545.8	651.4	681.3	719.1	751.0	760.9	766.9
72.5°	61.8	77.7	135.5	167.3	464.1	559.8	587.6	609.6	637.4	647.4	647.4
75°	55.8	69.7	127.5	149.4	380.5	458.2	482.1	504.0	525.9	529.9	523.9
77.5°	49.8	61.8	109.6	125.5	296.8	362.5	382.5	394.4	412.3	416.3	418.3
80°	41.8	53.8	85.7	97.6	215.1	266.9	280.9	290.8	306.8	306.8	310.8
82.5°	31.9	41.8	61.8	69.7	145.4	183.3	195.2	201.2	211.2	211.2	211.2
85°	19.9	25.9	39.8	45.8	87.6	111.6	119.5	121.5	129.5	131.5	131.5
87.5°	10.0	13.9	25.9	27.9	45.8	57.8	57.8	61.8	61.8	59.8	57.8
90°	12.4	22.4	32.3	34.8	54.7	81.2	94.4	84.0	62.9	47.2	47.2
92.5°	49.7	134.2	218.7	239.8	337.1	466.9	531.8	466.0	334.7	236.1	226.7
95°	119.3	273.9	428.5	467.1	829.5	1312.6	1554.3	1386.9	1052.4	801.4	772.9
97.5°	206.3	342.6	479.1	513.1	1117.4	1923.1	2325.9	2220.1	2008.6	1850.0	1795.9
100°	273.3	397.0	520.7	551.7	1222.2	2116.1	2563.1	2570.9	2586.3	2597.9	2533.4
102.5°	330.5	445.9	561.2	590.1	1270.2	2176.9	2630.2	2765.0	3034.4	3236.5	3181.3
105°	427.4	525.1	622.9	647.3	1305.8	2183.7	2622.8	2924.9	3528.9	3982.0	3952.3
107.5°	526.8	617.9	709.0	731.8	1312.4	2086.6	2473.7	2895.0	3737.7	4369.7	4376.8
110°	593.9	676.2	758.5	779.0	1302.5	2000.5	2349.5	2820.5	3762.5	4469.1	4499.9

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	659.8	738.1	816.5	836.1	1302.9	1925.2	2236.3	2718.4	3682.5	4405.6	4453.1
115°	759.2	831.5	903.8	921.9	1314.9	1838.9	2101.0	2565.3	3494.1	4190.7	4256.5
117.5°	857.3	923.0	988.7	1005.2	1339.3	1784.9	2007.7	2426.9	3265.1	3893.8	3966.8
120°	914.4	976.3	1038.1	1053.6	1359.2	1766.7	1970.5	2353.4	3119.4	3693.8	3764.7
122.5°	970.3	1032.8	1095.1	1110.7	1387.8	1757.2	1941.9	2286.7	2976.4	3493.7	3563.7
125°	1056.1	1112.9	1169.8	1184.0	1426.3	1749.3	1910.8	2203.7	2789.6	3229.0	3293.5
127.5°	1125.7	1183.0	1240.5	1254.9	1464.8	1744.8	1884.7	2136.2	2639.3	3016.6	3071.0
130°	1162.9	1224.8	1286.6	1302.1	1493.0	1747.5	1874.8	2098.7	2546.6	2882.4	2932.7
132.5°	1201.5	1263.3	1325.2	1340.6	1515.8	1749.4	1866.1	2066.5	2467.4	2768.1	2813.1
135°	1258.5	1314.9	1371.3	1385.3	1540.6	1747.7	1851.2	2019.1	2354.8	2606.6	2645.4
137.5°	1317.0	1372.8	1428.5	1442.4	1577.9	1758.4	1848.8	1990.7	2274.5	2487.3	2519.1
140°	1365.4	1416.8	1468.1	1481.0	1600.7	1760.2	1840.0	1962.6	2207.8	2391.7	2421.4
142.5°	1402.7	1450.2	1497.7	1509.5	1619.7	1766.6	1840.0	1947.7	2163.0	2324.6	2350.1
145°	1459.8	1501.3	1542.7	1553.1	1644.6	1766.6	1827.6	1915.6	2091.8	2224.0	2243.3
147.5°	1517.0	1557.3	1597.7	1607.7	1681.0	1778.8	1827.6	1896.9	2035.4	2139.4	2155.4
150°	1554.3	1590.7	1627.2	1636.2	1700.0	1785.0	1827.6	1886.1	2003.2	2091.0	2104.0
152.5°	1592.8	1620.4	1648.1	1655.0	1712.5	1789.2	1827.6	1877.6	1977.5	2052.5	2062.2
155°	1650.0	1670.4	1690.8	1695.9	1739.8	1798.3	1827.6	1867.3	1946.9	2006.5	2013.0
157.5°	1692.2	1712.1	1731.9	1736.9	1767.1	1807.4	1827.6	1858.5	1920.4	1966.8	1971.4
160°	1720.8	1736.2	1751.7	1755.5	1779.6	1811.5	1827.6	1854.1	1907.1	1946.9	1949.5
162.5°	1749.4	1760.9	1772.6	1775.5	1792.8	1816.0	1827.6	1850.0	1894.7	1928.3	1930.7
165°	1780.4	1790.8	1801.4	1804.0	1811.8	1822.3	1827.6	1843.6	1875.7	1899.7	1902.3
167.5°	1808.9	1813.9	1818.9	1820.2	1826.8	1835.6	1840.0	1850.5	1871.5	1887.2	1888.3
170°	1827.6	1832.5	1837.5	1838.8	1839.2	1839.7	1840.0	1850.5	1871.5	1887.2	1887.2
172.5°	1837.5	1838.6	1839.7	1840.0	1840.0	1840.0	1840.0	1848.3	1864.8	1877.3	1876.3
175°	1851.2	1851.2	1851.2	1851.2	1847.5	1842.5	1840.0	1845.3	1855.7	1863.6	1863.6
177.5°	1851.2	1851.2	1851.2	1851.2	1848.3	1844.4	1842.5	1846.7	1855.0	1861.1	1860.0
180°	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2	1851.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	619.5	619.5
2.5°	661.3	657.4
5°	850.6	854.6
7.5°	1145.5	1143.5
10°	1424.4	1442.3
12.5°	1627.6	1631.5
15°	1751.1	1759.0
17.5°	1798.9	1800.9
20°	1800.9	1796.9
22.5°	1779.0	1775.0
25°	1753.1	1751.1
27.5°	1729.2	1731.1
30°	1719.2	1725.2
32.5°	1719.2	1729.2
35°	1723.2	1733.1
37.5°	1721.2	1733.1
40°	1713.2	1727.2
42.5°	1691.3	1701.3
45°	1657.4	1669.4
47.5°	1613.6	1621.6
50°	1557.8	1565.8
52.5°	1488.1	1490.1
55°	1404.5	1412.4
57.5°	1314.8	1316.8
60°	1215.2	1221.2
62.5°	1109.5	1109.5
65°	998.0	1002.0
67.5°	882.5	892.4
70°	764.9	766.9
72.5°	649.4	649.4
75°	529.9	531.9
77.5°	416.3	416.3
80°	308.8	310.8
82.5°	213.1	217.1
85°	133.5	133.5
87.5°	61.8	55.8
90°	47.2	47.2
92.5°	189.1	151.6
95°	659.2	545.4
97.5°	1579.4	1362.9
100°	2275.6	2017.7
102.5°	2960.4	2739.6
105°	3833.6	3714.9
107.5°	4405.5	4434.2
110°	4623.6	4747.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4643.1	4833.0
115°	4519.9	4783.3
117.5°	4258.9	4551.0
120°	4048.5	4332.3
122.5°	3843.7	4123.6
125°	3551.4	3809.3
127.5°	3288.6	3506.1
130°	3133.7	3334.7
132.5°	2993.1	3173.2
135°	2800.6	2955.7
137.5°	2646.1	2773.1
140°	2540.1	2658.8
142.5°	2452.3	2554.4
145°	2320.6	2397.9
147.5°	2219.5	2283.5
150°	2155.9	2207.8
152.5°	2101.5	2140.7
155°	2039.0	2064.9
157.5°	1989.5	2007.7
160°	1960.0	1970.5
162.5°	1940.6	1950.6
165°	1912.8	1923.3
167.5°	1892.8	1897.2
170°	1887.2	1887.2
172.5°	1872.5	1868.6
175°	1863.6	1863.6
177.5°	1855.5	1851.2
180°	1851.2	1851.2

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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	2.28	3.00	3.40	4.11	5.66	15.46	16.18	16.58	17.29	18.84
	3H	2.98	3.62	4.10	4.74	6.30	17.29	17.93	18.42	19.06	20.62
	4H	3.27	3.88	4.40	5.00	6.57	17.93	18.54	19.06	19.66	21.23
	6H	3.51	4.07	4.65	5.20	6.78	18.35	18.91	19.50	20.04	21.62
	8H	3.58	4.11	4.72	5.25	6.82	18.47	19.00	19.61	20.14	21.72
	12H	3.59	4.10	4.74	5.23	6.83	18.53	19.04	19.68	20.17	21.77
4H	2H	9.48	10.09	10.62	11.21	12.78	15.72	16.33	16.86	17.45	19.02
	3H	11.04	11.55	12.18	12.69	14.27	17.75	18.26	18.90	19.41	20.99
	4H	11.12	11.59	12.27	12.73	14.33	18.51	18.98	19.66	20.12	21.72
	6H	11.13	11.53	12.28	12.69	14.28	19.04	19.44	20.20	20.61	22.19
	8H	11.10	11.47	12.25	12.63	14.23	19.20	19.58	20.36	20.73	22.34
	12H	11.05	11.39	12.22	12.55	14.16	19.29	19.63	20.46	20.79	22.40
8H	4H	12.56	12.93	13.71	14.08	15.69	18.56	18.94	19.72	20.09	21.69
	6H	12.79	13.10	13.97	14.30	15.90	19.18	19.49	20.36	20.69	22.29
	8H	12.81	13.08	13.99	14.25	15.87	19.40	19.67	20.58	20.84	22.47
	12H	12.77	13.01	13.95	14.18	15.83	19.54	19.78	20.72	20.95	22.60
12H	4H	12.69	13.03	13.86	14.20	15.81	18.50	18.85	19.68	20.01	21.62
	6H	13.05	13.32	14.23	14.49	16.12	19.16	19.43	20.34	20.61	22.23
	8H	13.11	13.35	14.30	14.52	16.17	19.39	19.62	20.57	20.79	22.45