

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: P938292

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938292  
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-B2750-1D-UNV-STD-W-8-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

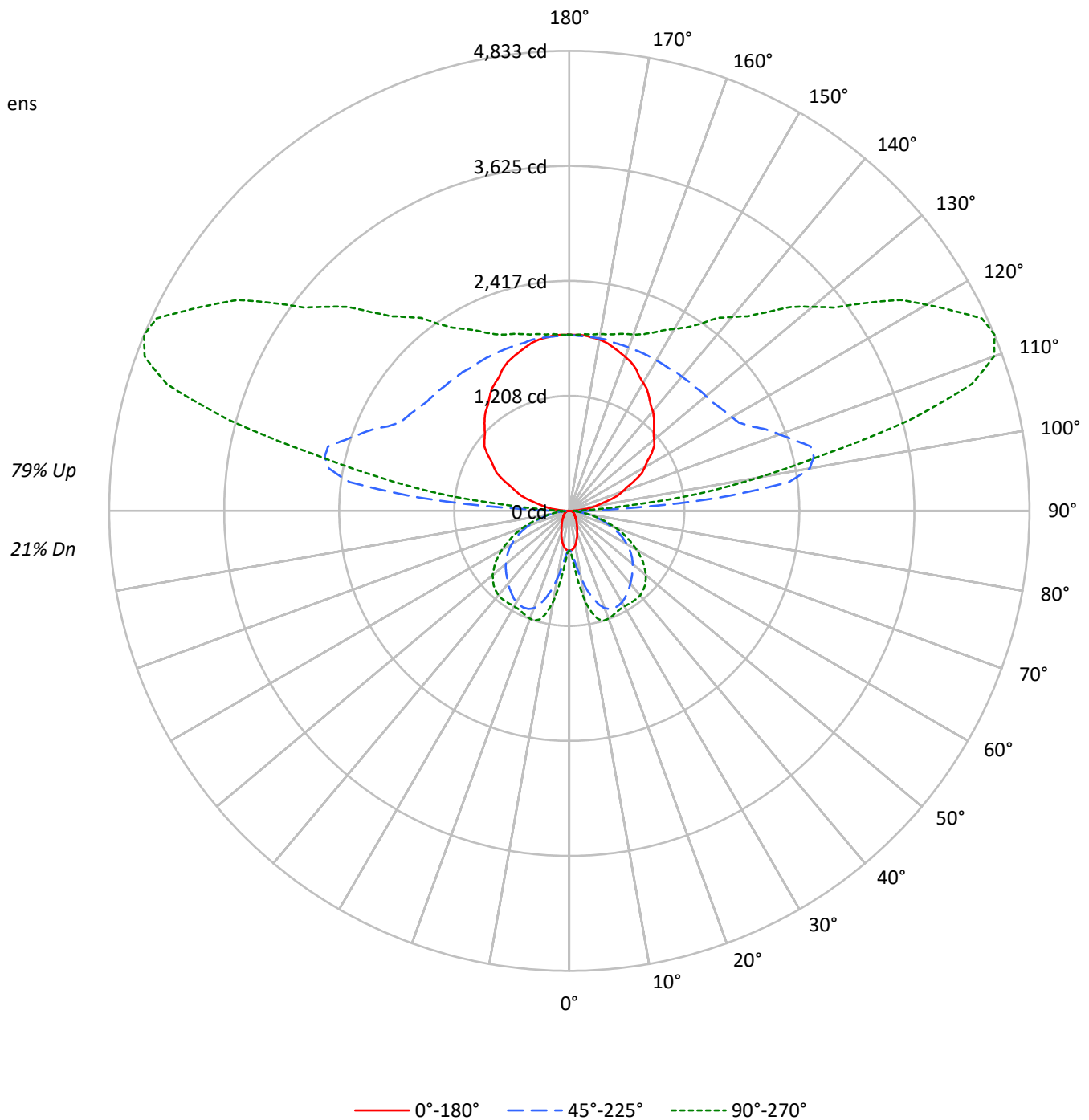
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15221.9 lumens  
Efficiency: N/A  
Efficacy: 136.9 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<sub>in</sub>): 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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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-8-2700K

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1927	1927	1927
5°	1883	2228	2591
10°	1708	3248	4295
15°	1452	4243	5187
20°	1182	4917	5286
25°	986	5145	5179
30°	831	5178	5169
35°	735	5092	5302
40°	641	4980	5441
45°	580	4898	5462
50°	532	4825	5372
55°	509	4717	5134
60°	522	4510	4757
65°	543	4195	4241
70°	578	3658	3583
75°	641	2983	2796
80°	701	2068	1884
85°	619	1098	964

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5462 cd/sqm



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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-8-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.7	0.4
10°-20°	238.2	1.6
20°-30°	416.6	2.7
30°-40°	536.3	3.5
40°-50°	599.1	3.9
50°-60°	573.8	3.8
60°-70°	454.7	3.0
70°-80°	267.4	1.8
80°-90°	81.3	0.5
90°-100°	902.4	5.9
100°-110°	2372.4	15.6
110°-120°	2459.9	16.2
120°-130°	1973.1	13.0
130°-140°	1548.2	10.2
140°-150°	1188.3	7.8
150°-160°	855.8	5.6
160°-170°	523.6	3.4
170°-180°	176.9	1.2
0°-30°	708.6	4.7
0°-40°	1244.9	8.2
0°-60°	2417.7	15.9
0°-90°	3221.2	21.2
90°-120°	5734.7	37.7
90°-150°	10444.4	68.6
90°-180°	12001.0	78.8
0°-180°	15221.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	415	415	415	415	415	
5°	405	434	489	553	573	37
15°	303	560	943	1144	1180	84
25°	194	635	1124	1173	1174	89
35°	131	606	1058	1118	1162	82
45°	90	484	935	1071	1120	69
55°	64	307	794	922	947	58
65°	51	163	589	663	672	50
75°	37	100	323	355	357	39
85°	13	31	80	88	90	14
90°	12	35	94	47	47	11
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°	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4
2.5°	415.4	415.4	418.1	419.5	422.1	423.5	426.2	428.9	436.8	438.1	440.8
5°	404.8	410.2	427.5	434.2	452.9	478.3	488.9	506.3	542.4	553.1	559.8
7.5°	388.7	400.8	443.5	454.2	501.0	567.7	595.8	633.3	690.6	718.7	741.4
10°	363.3	388.7	464.9	490.3	566.4	667.9	720.1	772.2	859.0	897.7	912.4
12.5°	335.4	376.7	487.6	522.3	631.9	780.2	843.0	900.4	999.3	1051.4	1059.3
15°	303.3	359.4	509.0	559.8	701.4	873.7	943.2	1013.9	1106.2	1143.5	1152.9
17.5°	275.2	346.0	529.1	582.5	754.8	957.9	1028.7	1087.4	1162.2	1187.6	1194.3
20°	240.4	324.6	542.4	611.8	810.9	1019.3	1087.4	1132.9	1183.6	1199.7	1202.4
22.5°	215.0	301.9	550.4	622.5	848.3	1056.8	1114.1	1150.3	1184.9	1190.3	1191.6
25°	193.7	276.5	549.1	634.6	880.4	1079.5	1123.5	1150.3	1170.3	1173.0	1173.0
27.5°	173.7	248.5	543.7	637.2	904.5	1084.7	1119.5	1138.2	1147.6	1152.9	1152.9
30°	156.3	221.8	530.4	631.9	915.1	1079.5	1107.5	1116.8	1126.2	1134.2	1138.2
32.5°	142.9	196.4	510.4	621.2	916.4	1066.0	1086.1	1091.4	1104.8	1123.5	1130.2
35°	130.9	171.0	487.6	606.5	908.5	1044.7	1058.1	1063.4	1090.1	1118.2	1127.5
37.5°	118.9	152.3	458.3	581.2	896.4	1019.3	1028.7	1038.0	1079.5	1112.8	1123.5
40°	106.9	136.3	423.5	553.1	877.7	988.6	996.6	1011.3	1066.0	1104.8	1115.5
42.5°	97.5	122.9	386.0	523.7	853.7	953.9	965.9	987.2	1050.1	1091.4	1103.5
45°	89.5	109.6	346.0	483.6	822.9	917.8	935.1	964.5	1031.4	1071.4	1082.1
47.5°	81.5	100.2	304.6	442.2	789.5	881.8	904.5	937.8	1006.0	1044.7	1054.1
50°	74.8	90.8	263.1	398.1	753.5	843.0	869.7	904.5	973.9	1009.9	1022.0
52.5°	69.4	82.9	224.4	354.0	712.0	802.9	833.7	869.7	935.1	969.9	977.9
55°	64.1	76.2	191.0	307.3	669.3	760.1	793.5	828.3	892.4	921.8	927.2
57.5°	61.5	70.8	162.9	263.1	623.9	712.0	749.5	781.6	841.6	864.3	869.7
60°	57.5	66.8	141.6	225.8	574.5	666.6	698.7	730.8	781.6	800.2	804.3
62.5°	53.5	64.1	125.6	189.7	523.7	613.2	645.2	674.7	717.4	730.8	736.1
65°	50.8	61.5	113.5	162.9	471.6	557.1	589.1	614.5	649.3	662.6	665.3
67.5°	48.1	58.8	104.2	140.2	419.5	501.0	525.0	549.1	575.8	589.1	590.4
70°	44.1	56.1	96.2	124.2	366.0	436.8	456.9	482.3	503.7	510.4	514.3
72.5°	41.4	52.1	90.8	112.2	311.2	375.4	394.1	408.8	427.5	434.2	434.2
75°	37.4	46.7	85.5	100.2	255.2	307.3	323.3	337.9	352.7	355.4	351.4
77.5°	33.4	41.4	73.5	84.2	199.1	243.1	256.5	264.5	276.5	279.2	280.6
80°	28.1	36.1	57.5	65.4	144.3	179.0	188.3	195.0	205.8	205.8	208.4
82.5°	21.4	28.1	41.4	46.7	97.5	122.9	130.9	135.0	141.6	141.6	141.6
85°	13.3	17.3	26.7	30.7	58.8	74.8	80.2	81.5	86.9	88.1	88.1
87.5°	6.7	9.4	17.3	18.7	30.7	38.7	38.7	41.4	41.4	40.0	38.7
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°	415.4	415.4
2.5°	443.5	440.8
5°	570.4	573.1
7.5°	768.1	766.8
10°	955.2	967.2
12.5°	1091.4	1094.1
15°	1174.3	1179.7
17.5°	1206.4	1207.6
20°	1207.6	1205.0
22.5°	1193.0	1190.3
25°	1175.6	1174.3
27.5°	1159.5	1160.9
30°	1152.9	1157.0
32.5°	1152.9	1159.5
35°	1155.6	1162.2
37.5°	1154.3	1162.2
40°	1148.9	1158.2
42.5°	1134.2	1140.9
45°	1111.5	1119.5
47.5°	1082.1	1087.4
50°	1044.7	1050.1
52.5°	997.9	999.3
55°	941.8	947.2
57.5°	881.8	883.1
60°	814.9	818.9
62.5°	744.1	744.1
65°	669.3	672.0
67.5°	591.8	598.5
70°	513.0	514.3
72.5°	435.6	435.6
75°	355.4	356.7
77.5°	279.2	279.2
80°	207.1	208.4
82.5°	142.9	145.6
85°	89.5	89.5
87.5°	41.4	37.4
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	0.00	0.37	0.87	1.53	3.16	12.89	13.55	14.06	14.71	16.34
	3H	0.40	0.99	1.57	2.16	3.80	14.71	15.31	15.89	16.47	18.11
	4H	0.69	1.25	1.87	2.42	4.06	15.35	15.92	16.53	17.08	18.73
	6H	0.93	1.45	2.12	2.61	4.27	15.77	16.29	16.96	17.45	19.11
	8H	0.99	1.49	2.18	2.66	4.31	15.88	16.38	17.08	17.56	19.21
	12H	1.00	1.47	2.20	2.64	4.32	15.94	16.42	17.14	17.59	19.26
4H	2H	6.90	7.47	8.09	8.63	10.28	13.14	13.70	14.33	14.87	16.51
	3H	8.45	8.92	9.64	10.11	11.77	15.17	15.64	16.36	16.83	18.49
	4H	8.53	8.97	9.73	10.15	11.82	15.92	16.36	17.12	17.53	19.21
	6H	8.53	8.91	9.73	10.10	11.77	16.45	16.82	17.65	18.02	19.69
	8H	8.51	8.85	9.70	10.04	11.73	16.61	16.96	17.81	18.15	19.83
	12H	8.45	8.77	9.67	9.97	11.66	16.69	17.01	17.91	18.21	19.90
8H	4H	9.96	10.31	11.16	11.50	13.18	15.97	16.32	17.16	17.50	19.19
	6H	10.20	10.48	11.41	11.71	13.40	16.59	16.87	17.80	18.11	19.79
	8H	10.21	10.46	11.43	11.67	13.37	16.80	17.05	18.03	18.26	19.96
	12H	10.17	10.39	11.40	11.59	13.33	16.94	17.16	18.16	18.36	20.10
12H	4H	10.10	10.41	11.31	11.61	13.30	15.91	16.23	17.12	17.42	19.11
	6H	10.45	10.70	11.67	11.91	13.61	16.57	16.82	17.79	18.02	19.73
	8H	10.51	10.73	11.74	11.94	13.67	16.79	17.01	18.01	18.21	19.94