

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: P937621

Luminaire Tested: SQ4-FB-100U-100D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937621
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-927-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

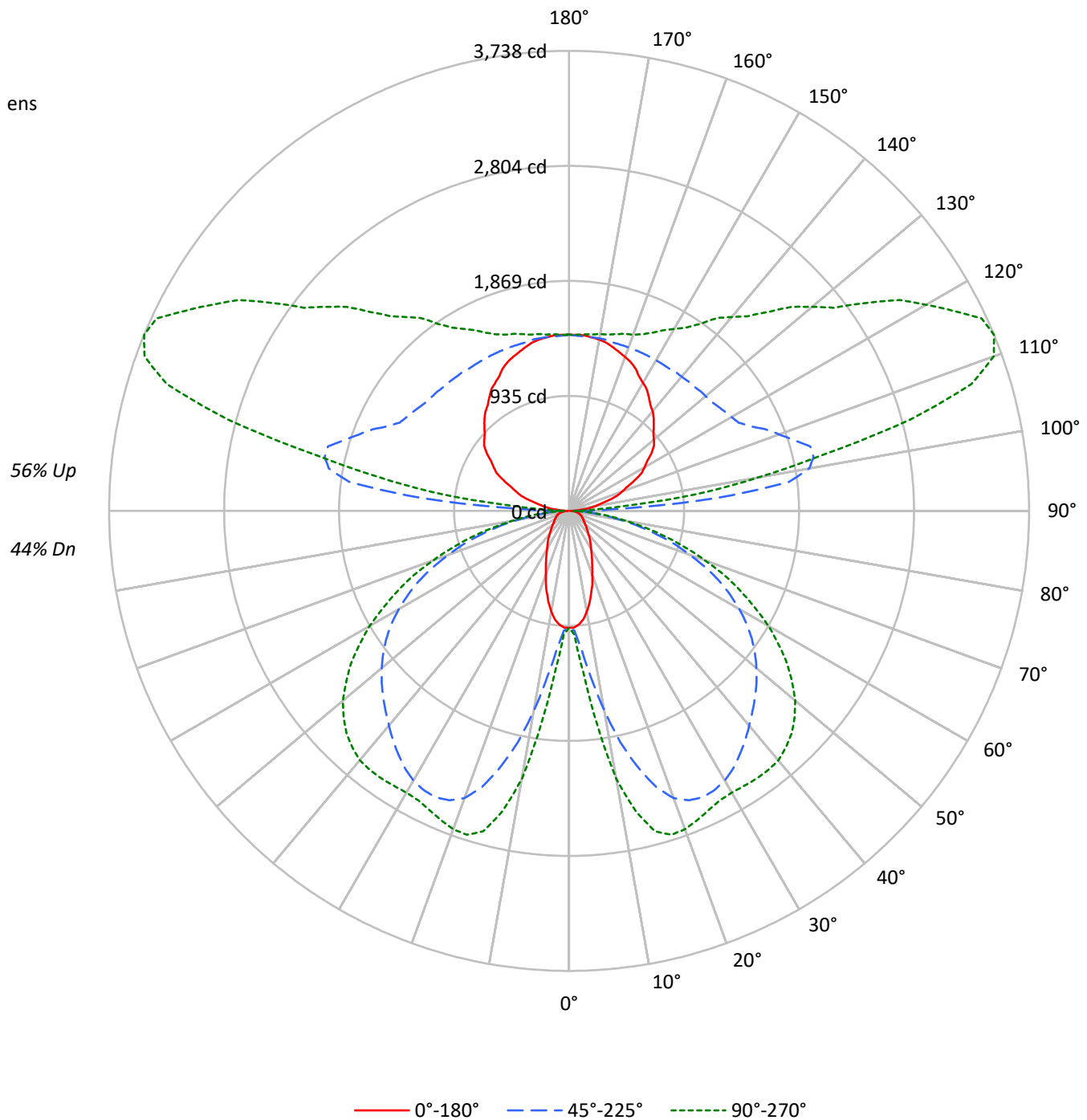
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16628.9 lumens
Efficiency: N/A
Efficacy: 95.6 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: General Diffuse

Input Watts (W): 174
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36				36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30				30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24				24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20				20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17				17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15				15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13				13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11				11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10				10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9				9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2936	2936	2936
5°	2869	3394	3946
10°	2603	4949	6542
15°	2214	6467	7900
20°	1803	7496	8051
25°	1504	7846	7887
30°	1269	7898	7872
35°	1123	7769	8076
40°	979	7600	8286
45°	887	7478	8319
50°	814	7368	8181
55°	781	7206	7819
60°	800	6893	7246
65°	834	6415	6459
70°	890	5598	5457
75°	991	4569	4258
80°	1090	3173	2869
85°	988	1686	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8319 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	0.7
10°-20°	544.2	3.3
20°-30°	951.8	5.7
30°-40°	1225.3	7.4
40°-50°	1368.6	8.2
50°-60°	1310.8	7.9
60°-70°	1038.8	6.2
70°-80°	610.8	3.7
80°-90°	175.2	1.1
90°-100°	697.8	4.2
100°-110°	1834.7	11.0
110°-120°	1902.4	11.4
120°-130°	1525.9	9.2
130°-140°	1197.3	7.2
140°-150°	919.0	5.5
150°-160°	661.8	4.0
160°-170°	404.9	2.4
170°-180°	136.8	0.8
0°-30°	1618.8	9.7
0°-40°	2844.0	17.1
0°-60°	5523.4	33.2
0°-90°	7348.2	44.2
90°-120°	4434.9	26.7
90°-150°	8077.2	48.6
90°-180°	9281.0	55.8
0°-180°	16628.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	925	992	1117	1264	1309	85
15°	693	1279	2155	2612	2695	193
25°	442	1450	2567	2680	2683	204
35°	299	1386	2417	2554	2655	187
45°	204	1105	2136	2448	2558	158
55°	146	702	1813	2106	2164	133
65°	116	372	1346	1514	1535	115
75°	86	229	739	812	815	89
85°	30	70	183	201	204	32
90°	10	27	73	36	36	10
95°	92	361	1202	620	422	102
105°	331	501	2028	3080	2873	350
115°	587	713	1625	3241	3699	580
125°	817	916	1478	2497	2946	725
135°	973	1071	1432	2016	2286	753
145°	1129	1201	1413	1720	1854	707
155°	1276	1312	1413	1552	1597	586
165°	1377	1395	1413	1469	1487	389
175°	1432	1432	1423	1441	1441	136
180°	1432	1432	1432	1432	1432	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2	949.2
2.5°	949.2	949.2	955.3	958.3	964.4	967.5	973.6	979.7	998.0	1001.1	1007.2
5°	924.8	936.9	976.7	991.9	1034.6	1092.6	1117.0	1156.7	1239.1	1263.5	1278.7
7.5°	888.1	915.6	1013.2	1037.7	1144.5	1297.1	1361.2	1446.6	1577.9	1641.9	1693.8
10°	830.1	888.1	1062.1	1120.0	1294.1	1526.0	1645.0	1764.1	1962.4	2050.9	2084.5
12.5°	766.1	860.6	1114.0	1193.3	1443.6	1782.3	1925.8	2057.1	2282.9	2401.9	2420.2
15°	692.8	821.0	1162.8	1278.7	1602.3	1996.0	2154.7	2316.5	2527.1	2612.5	2633.9
17.5°	628.7	790.5	1208.6	1330.6	1724.3	2188.3	2350.0	2484.3	2655.2	2713.2	2728.5
20°	549.3	741.7	1239.1	1397.8	1852.5	2328.6	2484.3	2588.0	2704.0	2740.7	2746.7
22.5°	491.3	689.8	1257.4	1422.2	1938.0	2414.1	2545.3	2627.8	2707.1	2719.3	2722.3
25°	442.5	631.8	1254.3	1449.7	2011.2	2466.0	2566.7	2627.8	2673.5	2679.6	2679.6
27.5°	396.8	567.6	1242.2	1455.8	2066.2	2478.2	2557.6	2600.3	2621.6	2633.9	2633.9
30°	357.0	506.7	1211.6	1443.6	2090.6	2466.0	2530.1	2551.5	2572.8	2591.1	2600.3
32.5°	326.6	448.6	1165.9	1419.2	2093.6	2435.5	2481.2	2493.5	2524.0	2566.7	2582.0
35°	299.1	390.6	1114.0	1385.6	2075.3	2386.6	2417.2	2429.4	2490.4	2554.5	2575.9
37.5°	271.7	348.0	1046.8	1327.6	2047.9	2328.6	2350.0	2371.4	2466.0	2542.3	2566.7
40°	244.2	311.3	967.5	1263.5	2005.2	2258.5	2276.7	2310.3	2435.5	2524.0	2548.4
42.5°	222.8	280.8	882.0	1196.3	1950.2	2179.1	2206.6	2255.4	2398.9	2493.5	2520.9
45°	204.5	250.2	790.5	1104.8	1880.0	2096.7	2136.4	2203.5	2356.1	2447.7	2472.1
47.5°	186.2	228.9	695.8	1010.2	1803.7	2014.3	2066.2	2142.4	2298.1	2386.6	2408.0
50°	170.9	207.5	601.2	909.5	1721.3	1925.8	1986.8	2066.2	2224.9	2307.3	2334.8
52.5°	158.7	189.2	512.7	808.8	1626.7	1834.2	1904.4	1986.8	2136.4	2215.8	2234.1
55°	146.5	173.9	436.4	701.9	1529.1	1736.6	1812.9	1892.2	2038.7	2105.9	2118.0
57.5°	140.4	161.8	372.4	601.2	1425.3	1626.7	1712.2	1785.4	1922.8	1974.6	1986.8
60°	131.2	152.6	323.5	515.7	1312.3	1522.9	1596.2	1669.4	1785.4	1828.1	1837.3
62.5°	122.0	146.5	286.9	433.4	1196.3	1400.9	1474.1	1541.2	1638.9	1669.4	1681.6
65°	116.0	140.4	259.4	372.4	1077.4	1272.7	1345.9	1403.9	1483.3	1513.7	1519.9
67.5°	109.9	134.3	238.1	320.5	958.3	1144.5	1199.4	1254.3	1315.4	1345.9	1349.0
70°	100.7	128.2	219.8	283.8	836.2	998.0	1043.8	1101.8	1150.6	1165.9	1175.0
72.5°	94.6	119.0	207.5	256.3	711.1	857.6	900.4	933.9	976.7	991.9	991.9
75°	85.5	106.8	195.3	228.9	582.9	701.9	738.6	772.2	805.7	811.8	802.6
77.5°	76.3	94.6	167.9	192.3	454.8	555.5	586.0	604.3	631.8	637.9	640.9
80°	64.1	82.4	131.2	149.5	329.6	408.9	430.4	445.6	470.0	470.0	476.1
82.5°	48.8	64.1	94.6	106.8	222.8	280.8	299.1	308.2	323.5	323.5	323.5
85°	30.5	39.7	61.1	70.2	134.3	170.9	183.1	186.2	198.4	201.4	201.4
87.5°	15.2	21.3	39.7	42.7	70.2	88.5	88.5	94.6	94.6	91.6	88.5
90°	9.6	17.3	24.9	26.9	42.3	62.8	73.0	64.9	48.7	36.5	36.5
92.5°	38.4	103.7	169.1	185.4	260.7	361.1	411.3	360.4	258.8	182.6	175.3
95°	92.2	211.8	331.4	361.3	641.5	1015.2	1202.0	1072.6	813.8	619.7	597.7
97.5°	159.5	265.0	370.4	396.9	864.1	1487.1	1798.6	1716.9	1553.3	1430.7	1388.8
100°	211.4	307.0	402.6	426.6	945.1	1636.5	1982.2	1988.2	2000.2	2009.1	1959.3
102.5°	255.6	344.8	434.0	456.4	982.3	1683.5	2034.1	2138.3	2346.7	2503.0	2460.2
105°	330.6	406.1	481.7	500.6	1009.9	1688.8	2028.3	2262.0	2729.1	3079.5	3056.5
107.5°	407.4	477.9	548.3	566.0	1014.9	1613.6	1913.0	2238.9	2890.5	3379.2	3384.8
110°	459.3	522.9	586.5	602.4	1007.2	1547.0	1816.9	2181.2	2909.7	3456.1	3480.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	510.2	570.9	631.5	646.6	1007.6	1488.9	1729.5	2102.3	2847.9	3407.1	3443.8
115°	587.0	643.0	698.9	712.9	1016.9	1422.1	1624.8	1983.9	2702.2	3240.9	3291.8
117.5°	663.0	713.8	764.6	777.3	1035.8	1380.4	1552.7	1876.8	2525.1	3011.2	3067.7
120°	707.2	755.0	802.9	814.8	1051.2	1366.4	1523.9	1820.0	2412.3	2856.5	2911.4
122.5°	750.4	798.7	846.9	859.0	1073.3	1359.0	1501.8	1768.5	2301.8	2701.9	2756.0
125°	816.7	860.7	904.7	915.7	1103.0	1352.9	1477.8	1704.3	2157.4	2497.2	2547.0
127.5°	870.5	914.9	959.3	970.4	1132.8	1349.3	1457.6	1652.1	2041.1	2332.9	2374.9
130°	899.4	947.2	995.0	1006.9	1154.6	1351.5	1449.9	1623.1	1969.4	2229.2	2268.0
132.5°	929.2	977.0	1024.8	1036.7	1172.2	1352.8	1443.1	1598.1	1908.2	2140.8	2175.6
135°	973.4	1016.9	1060.4	1071.3	1191.4	1351.6	1431.7	1561.5	1821.0	2015.8	2045.8
137.5°	1018.5	1061.6	1104.7	1115.5	1220.2	1359.9	1429.7	1539.5	1759.0	1923.6	1948.2
140°	1056.0	1095.7	1135.4	1145.3	1237.9	1361.3	1423.0	1517.7	1707.4	1849.6	1872.6
142.5°	1084.8	1121.5	1158.2	1167.4	1252.6	1366.1	1423.0	1506.3	1672.8	1797.7	1817.4
145°	1129.0	1161.0	1193.0	1201.0	1271.8	1366.2	1413.4	1481.5	1617.7	1719.9	1734.8
147.5°	1173.2	1204.4	1235.5	1243.3	1300.0	1375.6	1413.4	1467.0	1574.2	1654.6	1667.0
150°	1202.0	1230.2	1258.3	1265.4	1314.8	1380.5	1413.4	1458.7	1549.2	1617.1	1627.1
152.5°	1231.8	1253.1	1274.5	1279.8	1324.3	1383.7	1413.4	1452.1	1529.3	1587.3	1594.8
155°	1276.0	1291.8	1307.6	1311.5	1345.5	1390.8	1413.4	1444.1	1505.6	1551.7	1556.7
157.5°	1308.6	1324.0	1339.4	1343.3	1366.7	1397.9	1413.4	1437.3	1485.1	1521.0	1524.5
160°	1330.7	1342.7	1354.7	1357.7	1376.2	1401.0	1413.4	1433.9	1474.9	1505.6	1507.6
162.5°	1352.8	1361.7	1370.8	1373.0	1386.5	1404.4	1413.4	1430.7	1465.2	1491.2	1493.1
165°	1376.8	1384.9	1393.1	1395.1	1401.2	1409.3	1413.4	1425.8	1450.5	1469.1	1471.1
167.5°	1398.9	1402.8	1406.6	1407.6	1412.7	1419.6	1423.0	1431.1	1447.4	1459.5	1460.4
170°	1413.4	1417.3	1421.1	1422.0	1422.3	1422.7	1423.0	1431.1	1447.4	1459.5	1459.5
172.5°	1421.0	1421.9	1422.7	1423.0	1423.0	1423.0	1423.0	1429.4	1442.2	1451.8	1451.1
175°	1431.7	1431.7	1431.7	1431.7	1428.7	1424.9	1423.0	1427.0	1435.1	1441.2	1441.2
177.5°	1431.7	1431.7	1431.7	1431.7	1429.4	1426.4	1424.9	1428.1	1434.5	1439.3	1438.4
180°	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7	1431.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	949.2	949.2
2.5°	1013.2	1007.2
5°	1303.2	1309.3
7.5°	1754.9	1751.8
10°	2182.2	2209.6
12.5°	2493.5	2499.6
15°	2682.7	2694.9
17.5°	2755.9	2759.0
20°	2759.0	2752.9
22.5°	2725.4	2719.3
25°	2685.8	2682.7
27.5°	2649.1	2652.2
30°	2633.9	2643.0
32.5°	2633.9	2649.1
35°	2639.9	2655.2
37.5°	2636.9	2655.2
40°	2624.7	2646.0
42.5°	2591.1	2606.4
45°	2539.2	2557.6
47.5°	2472.1	2484.3
50°	2386.6	2398.9
52.5°	2279.8	2282.9
55°	2151.6	2163.9
57.5°	2014.3	2017.3
60°	1861.7	1870.9
62.5°	1699.9	1699.9
65°	1529.1	1535.1
67.5°	1352.0	1367.3
70°	1171.9	1175.0
72.5°	994.9	994.9
75°	811.8	814.9
77.5°	637.9	637.9
80°	473.1	476.1
82.5°	326.6	332.6
85°	204.5	204.5
87.5°	94.6	85.5
90°	36.5	36.5
92.5°	146.2	117.2
95°	509.7	421.8
97.5°	1221.5	1054.1
100°	1759.8	1560.4
102.5°	2289.4	2118.7
105°	2964.7	2872.9
107.5°	3407.0	3429.2
110°	3575.6	3671.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3590.7	3737.7
115°	3495.5	3699.2
117.5°	3293.6	3519.5
120°	3130.9	3350.4
122.5°	2972.4	3189.0
125°	2746.4	2945.9
127.5°	2543.2	2711.5
130°	2423.4	2578.9
132.5°	2314.8	2454.0
135°	2165.8	2285.8
137.5°	2046.4	2144.6
140°	1964.4	2056.2
142.5°	1896.4	1975.4
145°	1794.6	1854.4
147.5°	1716.5	1766.0
150°	1667.3	1707.4
152.5°	1625.2	1655.5
155°	1576.8	1596.9
157.5°	1538.6	1552.7
160°	1515.7	1523.9
162.5°	1500.8	1508.5
165°	1479.2	1487.3
167.5°	1463.8	1467.2
170°	1459.5	1459.5
172.5°	1448.1	1445.1
175°	1441.2	1441.2
177.5°	1435.0	1431.7
180°	1431.7	1431.7



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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	4.20	5.04	5.20	6.06	7.41	17.39	18.23	18.39	19.25	20.60
	3H	4.90	5.66	5.91	6.68	8.05	19.23	19.99	20.24	21.01	22.38
	4H	5.20	5.92	6.22	6.94	8.32	19.88	20.60	20.90	21.63	23.00
	6H	5.45	6.11	6.48	7.14	8.53	20.31	20.98	21.35	22.01	23.40
	8H	5.52	6.15	6.55	7.19	8.58	20.44	21.07	21.47	22.12	23.50
	12H	5.53	6.13	6.58	7.17	8.59	20.51	21.11	21.55	22.15	23.56
4H	2H	11.42	12.14	12.45	13.16	14.54	17.66	18.38	18.69	19.41	20.78
	3H	12.98	13.59	14.02	14.64	16.03	19.71	20.31	20.75	21.37	22.76
	4H	13.08	13.63	14.12	14.68	16.09	20.48	21.03	21.52	22.08	23.49
	6H	13.09	13.56	14.14	14.63	16.04	21.02	21.50	22.08	22.57	23.97
	8H	13.06	13.51	14.12	14.57	15.99	21.19	21.63	22.24	22.69	24.12
	12H	13.02	13.42	14.09	14.50	15.93	21.28	21.68	22.36	22.76	24.19
8H	4H	14.52	14.97	15.58	16.03	17.45	20.54	20.98	21.59	22.04	23.47
	6H	14.77	15.13	15.84	16.24	17.66	21.17	21.54	22.25	22.64	24.06
	8H	14.78	15.11	15.87	16.19	17.63	21.39	21.72	22.48	22.80	24.24
	12H	14.75	15.04	15.84	16.12	17.60	21.54	21.83	22.63	22.91	24.39
12H	4H	14.67	15.07	15.74	16.15	17.58	20.49	20.89	21.56	21.97	23.40
	6H	15.03	15.35	16.11	16.44	17.88	21.15	21.48	22.24	22.57	24.01
	8H	15.09	15.38	16.18	16.46	17.94	21.39	21.67	22.48	22.75	24.23