

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: P938054

Luminaire Tested: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938054
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

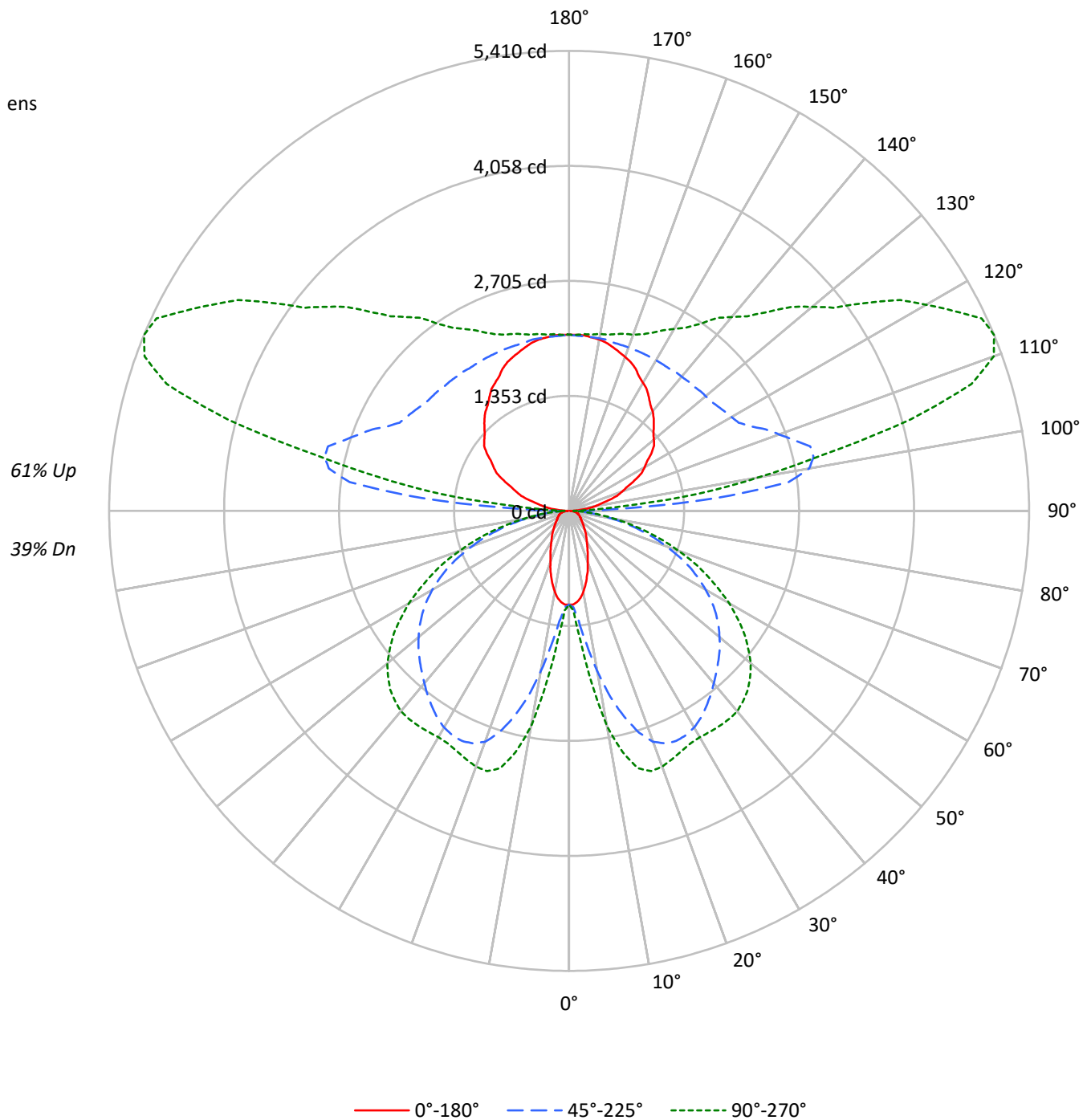
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21978.1 lumens
Efficiency: N/A
Efficacy: 113.8 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: Semi-Indirect

Input Watts (W): 193.2
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

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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	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°	3414	3414	3414
5°	3336	3946	4588
10°	3027	5754	7607
15°	2574	7520	9185
20°	2096	8716	9361
25°	1749	9123	9171
30°	1476	9183	9154
35°	1305	9033	9390
40°	1138	8837	9635
45°	1032	8694	9673
50°	947	8567	9513
55°	908	8379	9091
60°	931	8015	8425
65°	969	7459	7510
70°	1035	6510	6344
75°	1152	5312	4951
80°	1267	3689	3336
85°	1150	1960	1708

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9673 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.8	0.6
10°-20°	632.7	2.9
20°-30°	1106.7	5.0
30°-40°	1424.7	6.5
40°-50°	1591.3	7.2
50°-60°	1524.1	6.9
60°-70°	1207.9	5.5
70°-80°	710.3	3.2
80°-90°	205.2	0.9
90°-100°	1010.0	4.6
100°-110°	2655.4	12.1
110°-120°	2753.4	12.5
120°-130°	2208.6	10.0
130°-140°	1733.0	7.9
140°-150°	1330.1	6.1
150°-160°	957.9	4.4
160°-170°	586.1	2.7
170°-180°	198.0	0.9
0°-30°	1882.2	8.6
0°-40°	3306.9	15.0
0°-60°	6422.3	29.2
0°-90°	8545.6	38.9
90°-120°	6418.9	29.2
90°-150°	11690.5	53.2
90°-180°	13433.0	61.1
0°-180°	21978.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1075	1153	1299	1469	1522	99
15°	806	1487	2505	3038	3134	224
25°	514	1686	2984	3116	3119	237
35°	348	1611	2811	2970	3087	217
45°	238	1285	2484	2846	2974	184
55°	170	816	2108	2449	2516	155
65°	135	433	1565	1760	1785	134
75°	99	266	859	944	948	104
85°	36	82	213	234	238	38
90°	14	39	106	53	53	14
95°	134	523	1740	897	610	148
105°	478	725	2936	4457	4158	507
115°	850	1032	2352	4691	5354	839
125°	1182	1325	2139	3614	4264	1049
135°	1409	1551	2072	2918	3308	1090
145°	1634	1738	2046	2489	2684	1024
155°	1847	1898	2046	2246	2311	849
165°	1993	2019	2046	2126	2153	562
175°	2072	2072	2060	2086	2086	197
180°	2072	2072	2072	2072	2072	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7
2.5°	1103.7	1103.7	1110.7	1114.3	1121.4	1125.0	1132.0	1139.1	1160.4	1164.0	1171.1
5°	1075.3	1089.4	1135.6	1153.3	1203.0	1270.4	1298.8	1344.9	1440.7	1469.1	1486.8
7.5°	1032.7	1064.6	1178.1	1206.5	1330.7	1508.2	1582.7	1682.0	1834.7	1909.2	1969.5
10°	965.2	1032.7	1234.9	1302.3	1504.7	1774.3	1912.7	2051.2	2281.8	2384.7	2423.7
12.5°	890.7	1000.7	1295.2	1387.6	1678.5	2072.4	2239.2	2391.8	2654.4	2792.8	2814.1
15°	805.5	954.6	1352.0	1486.8	1863.1	2320.8	2505.4	2693.5	2938.3	3037.6	3062.5
17.5°	731.0	919.1	1405.3	1547.2	2005.0	2544.4	2732.5	2888.6	3087.3	3154.7	3172.5
20°	638.7	862.4	1440.7	1625.3	2154.0	2707.6	2888.6	3009.2	3144.1	3186.7	3193.8
22.5°	571.3	802.0	1462.0	1653.6	2253.4	2807.0	2959.5	3055.4	3147.6	3161.9	3165.4
25°	514.5	734.6	1458.5	1685.6	2338.6	2867.3	2984.4	3055.4	3108.6	3115.7	3115.7
27.5°	461.4	660.0	1444.3	1692.7	2402.5	2881.5	2973.8	3023.5	3048.3	3062.5	3062.5
30°	415.2	589.1	1408.8	1678.5	2430.9	2867.3	2941.8	2966.7	2991.5	3012.8	3023.5
32.5°	379.7	521.6	1355.6	1650.1	2434.4	2831.9	2885.1	2899.3	2934.7	2984.4	3002.2
35°	347.7	454.2	1295.2	1611.1	2413.0	2775.0	2810.6	2824.7	2895.7	2970.2	2995.1
37.5°	315.9	404.6	1217.2	1543.7	2381.2	2707.6	2732.5	2757.3	2867.3	2956.1	2984.4
40°	283.9	362.0	1125.0	1469.1	2331.5	2626.0	2647.3	2686.3	2831.9	2934.7	2963.1
42.5°	259.0	326.5	1025.6	1391.0	2267.6	2533.7	2565.7	2622.5	2789.3	2899.3	2931.2
45°	237.8	291.0	919.1	1284.6	2186.0	2437.9	2484.0	2562.1	2739.6	2846.0	2874.4
47.5°	216.5	266.2	809.1	1174.6	2097.3	2342.1	2402.5	2491.1	2672.1	2775.0	2799.9
50°	198.8	241.3	699.1	1057.5	2001.5	2239.2	2310.2	2402.5	2587.0	2682.8	2714.8
52.5°	184.5	220.0	596.2	940.4	1891.4	2132.7	2214.4	2310.2	2484.0	2576.3	2597.7
55°	170.4	202.3	507.5	816.2	1777.9	2019.2	2107.9	2200.1	2370.5	2448.6	2462.7
57.5°	163.2	188.1	433.0	699.1	1657.2	1891.4	1990.8	2076.0	2235.7	2295.9	2310.2
60°	152.6	177.5	376.1	599.7	1525.9	1770.7	1856.0	1941.1	2076.0	2125.6	2136.3
62.5°	141.9	170.4	333.6	503.9	1391.0	1628.8	1714.0	1792.1	1905.7	1941.1	1955.3
65°	134.8	163.2	301.6	433.0	1252.7	1479.8	1564.9	1632.4	1724.6	1760.1	1767.3
67.5°	127.8	156.1	276.8	372.6	1114.3	1330.7	1394.6	1458.5	1529.5	1564.9	1568.5
70°	117.1	149.1	255.5	330.0	972.3	1160.4	1213.7	1281.1	1337.9	1355.6	1366.2
72.5°	110.0	138.4	241.3	298.0	826.8	997.2	1046.9	1085.9	1135.6	1153.3	1153.3
75°	99.4	124.2	227.1	266.2	677.8	816.2	858.8	897.8	936.9	943.9	933.3
77.5°	88.7	110.0	195.2	223.6	528.8	645.9	681.3	702.6	734.6	741.7	745.3
80°	74.5	95.8	152.6	173.9	383.3	475.5	500.4	518.1	546.5	546.5	553.6
82.5°	56.8	74.5	110.0	124.2	259.0	326.5	347.7	358.4	376.1	376.1	376.1
85°	35.5	46.1	71.0	81.7	156.1	198.8	212.9	216.5	230.6	234.2	234.2
87.5°	17.7	24.8	46.1	49.7	81.7	102.9	102.9	110.0	110.0	106.5	102.9
90°	13.9	25.0	36.2	38.9	61.1	90.8	105.6	93.9	70.5	52.8	52.8
92.5°	55.6	150.1	244.8	268.4	377.4	522.6	595.2	521.6	374.5	264.2	253.7
95°	133.5	306.6	479.6	522.9	928.4	1469.3	1739.7	1552.4	1177.9	897.0	865.1
97.5°	230.8	383.5	536.2	574.3	1250.7	2152.4	2603.3	2484.9	2248.2	2070.7	2010.1
100°	305.9	444.4	582.8	617.5	1367.9	2368.6	2868.9	2877.6	2894.9	2907.9	2835.7
102.5°	369.9	499.1	628.2	660.6	1421.8	2436.6	2944.1	3094.8	3396.5	3622.7	3560.9
105°	478.4	587.8	697.2	724.6	1461.6	2444.3	2935.6	3273.7	3949.9	4457.0	4423.8
107.5°	589.7	691.6	793.6	819.1	1469.0	2335.6	2768.8	3240.4	4183.5	4890.9	4899.0
110°	664.8	756.8	848.9	871.9	1457.8	2239.1	2629.7	3157.0	4211.4	5002.2	5036.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	738.5	826.2	913.9	935.9	1458.3	2154.9	2503.2	3042.8	4121.9	4931.3	4984.5
115°	849.7	930.6	1011.6	1031.8	1471.8	2058.3	2351.6	2871.4	3911.0	4690.7	4764.4
117.5°	959.6	1033.1	1106.7	1125.0	1499.1	1997.9	2247.3	2716.5	3654.7	4358.3	4440.0
120°	1023.5	1092.7	1162.0	1179.3	1521.4	1977.6	2205.6	2634.3	3491.5	4134.5	4213.9
122.5°	1086.1	1155.9	1225.8	1243.2	1553.4	1966.9	2173.6	2559.6	3331.5	3910.5	3988.9
125°	1182.1	1245.7	1309.4	1325.3	1596.5	1958.0	2138.8	2466.7	3122.5	3614.3	3686.4
127.5°	1260.0	1324.3	1388.5	1404.6	1639.6	1952.9	2109.6	2391.1	2954.2	3376.5	3437.4
130°	1301.7	1370.9	1440.1	1457.4	1671.1	1956.1	2098.5	2349.1	2850.4	3226.3	3282.6
132.5°	1344.8	1414.0	1483.3	1500.5	1696.6	1958.0	2088.8	2313.1	2761.9	3098.4	3148.8
135°	1408.8	1471.8	1534.8	1550.6	1724.5	1956.3	2072.1	2260.0	2635.8	2917.6	2961.1
137.5°	1474.1	1536.5	1598.9	1614.5	1766.1	1968.3	2069.3	2228.2	2545.8	2784.1	2819.6
140°	1528.3	1585.8	1643.3	1657.7	1791.6	1970.2	2059.6	2196.7	2471.2	2677.0	2710.2
142.5°	1570.0	1623.2	1676.4	1689.6	1812.9	1977.4	2059.6	2180.1	2421.2	2602.0	2630.5
145°	1634.0	1680.4	1726.8	1738.3	1840.8	1977.4	2045.7	2144.3	2341.4	2489.2	2510.9
147.5°	1698.0	1743.1	1788.2	1799.5	1881.6	1991.0	2045.7	2123.2	2278.4	2394.7	2412.6
150°	1739.7	1780.5	1821.3	1831.5	1902.9	1998.1	2045.7	2111.2	2242.2	2340.4	2354.9
152.5°	1782.8	1813.7	1844.7	1852.4	1916.9	2002.7	2045.7	2101.7	2213.5	2297.4	2308.4
155°	1846.8	1869.7	1892.5	1898.2	1947.4	2012.9	2045.7	2090.2	2179.2	2245.9	2253.1
157.5°	1894.1	1916.3	1938.6	1944.2	1978.0	2023.1	2045.7	2080.3	2149.5	2201.4	2206.5
160°	1926.1	1943.4	1960.7	1965.0	1991.9	2027.8	2045.7	2075.3	2134.7	2179.2	2182.1
162.5°	1958.0	1971.0	1984.0	1987.2	2006.8	2032.7	2045.7	2070.8	2120.8	2158.3	2161.1
165°	1992.8	2004.5	2016.2	2019.2	2028.1	2039.8	2045.7	2063.6	2099.4	2126.3	2129.2
167.5°	2024.8	2030.4	2035.9	2037.3	2044.7	2054.7	2059.6	2071.3	2094.8	2112.4	2113.7
170°	2045.7	2051.2	2056.8	2058.1	2058.6	2059.2	2059.6	2071.3	2094.8	2112.4	2112.4
172.5°	2056.8	2058.1	2059.3	2059.6	2059.6	2059.6	2059.6	2068.9	2087.4	2101.3	2100.2
175°	2072.1	2072.1	2072.1	2072.1	2067.9	2062.4	2059.6	2065.5	2077.2	2086.0	2086.0
177.5°	2072.1	2072.1	2072.1	2072.1	2068.9	2064.5	2062.4	2067.0	2076.2	2083.2	2082.0
180°	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1	2072.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1103.7	1103.7
2.5°	1178.1	1171.1
5°	1515.3	1522.4
7.5°	2040.5	2036.9
10°	2537.3	2569.2
12.5°	2899.3	2906.4
15°	3119.3	3133.5
17.5°	3204.4	3208.0
20°	3208.0	3200.9
22.5°	3169.0	3161.9
25°	3122.8	3119.3
27.5°	3080.2	3083.8
30°	3062.5	3073.2
32.5°	3062.5	3080.2
35°	3069.6	3087.3
37.5°	3066.0	3087.3
40°	3051.9	3076.7
42.5°	3012.8	3030.5
45°	2952.5	2973.8
47.5°	2874.4	2888.6
50°	2775.0	2789.3
52.5°	2650.8	2654.4
55°	2501.8	2516.0
57.5°	2342.1	2345.6
60°	2164.7	2175.3
62.5°	1976.6	1976.6
65°	1777.9	1785.0
67.5°	1572.1	1589.8
70°	1362.7	1366.2
72.5°	1156.8	1156.8
75°	943.9	947.5
77.5°	741.7	741.7
80°	550.1	553.6
82.5°	379.7	386.8
85°	237.8	237.8
87.5°	110.0	99.4
90°	52.8	52.8
92.5°	211.7	169.7
95°	737.8	610.5
97.5°	1767.8	1525.5
100°	2547.1	2258.4
102.5°	3313.6	3066.4
105°	4291.0	4158.1
107.5°	4931.1	4963.3
110°	5175.3	5313.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5197.0	5409.7
115°	5059.2	5354.1
117.5°	4767.0	5094.0
120°	4531.5	4849.2
122.5°	4302.2	4615.6
125°	3975.1	4263.7
127.5°	3680.9	3924.4
130°	3507.6	3732.6
132.5°	3350.3	3551.7
135°	3134.7	3308.4
137.5°	2961.8	3104.0
140°	2843.2	2976.0
142.5°	2744.8	2859.2
145°	2597.4	2684.0
147.5°	2484.3	2556.0
150°	2413.1	2471.2
152.5°	2352.3	2396.1
155°	2282.2	2311.2
157.5°	2226.9	2247.3
160°	2193.9	2205.6
162.5°	2172.2	2183.3
165°	2141.0	2152.8
167.5°	2118.6	2123.5
170°	2112.4	2112.4
172.5°	2095.8	2091.5
175°	2086.0	2086.0
177.5°	2077.0	2072.1
180°	2072.1	2072.1



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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	4.17	4.96	5.21	6.01	7.43	17.36	18.15	18.40	19.20	20.62
	3H	4.87	5.58	5.92	6.64	8.08	19.20	19.91	20.25	20.97	22.41
	4H	5.16	5.84	6.22	6.90	8.35	19.84	20.52	20.90	21.58	23.03
	6H	5.41	6.03	6.48	7.10	8.56	20.27	20.90	21.35	21.97	23.42
	8H	5.47	6.07	6.55	7.15	8.60	20.40	20.99	21.47	22.07	23.53
	12H	5.49	6.06	6.57	7.13	8.61	20.46	21.03	21.55	22.11	23.58
4H	2H	11.38	12.06	12.45	13.12	14.57	17.62	18.30	18.69	19.36	20.81
	3H	12.94	13.51	14.02	14.60	16.06	19.67	20.24	20.74	21.32	22.78
	4H	13.03	13.56	14.12	14.63	16.11	20.44	20.96	21.52	22.04	23.52
	6H	13.04	13.49	14.13	14.59	16.06	20.98	21.42	22.07	22.53	24.00
	8H	13.02	13.43	14.11	14.53	16.02	21.14	21.56	22.23	22.65	24.14
	12H	12.97	13.35	14.08	14.46	15.95	21.23	21.61	22.34	22.72	24.21
8H	4H	14.48	14.90	15.57	15.99	17.48	20.49	20.91	21.58	22.00	23.49
	6H	14.71	15.06	15.83	16.20	17.68	21.12	21.47	22.23	22.60	24.09
	8H	14.73	15.04	15.85	16.15	17.66	21.34	21.65	22.46	22.76	24.27
	12H	14.70	14.97	15.82	16.08	17.62	21.49	21.75	22.61	22.87	24.41
12H	4H	14.62	15.00	15.73	16.11	17.60	20.44	20.82	21.55	21.93	23.42
	6H	14.97	15.28	16.09	16.40	17.90	21.10	21.41	22.22	22.53	24.03
	8H	15.04	15.31	16.17	16.42	17.97	21.33	21.60	22.46	22.72	24.26