

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: P937713

Luminaire Tested: SQ4-FB-100U-125D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937713
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

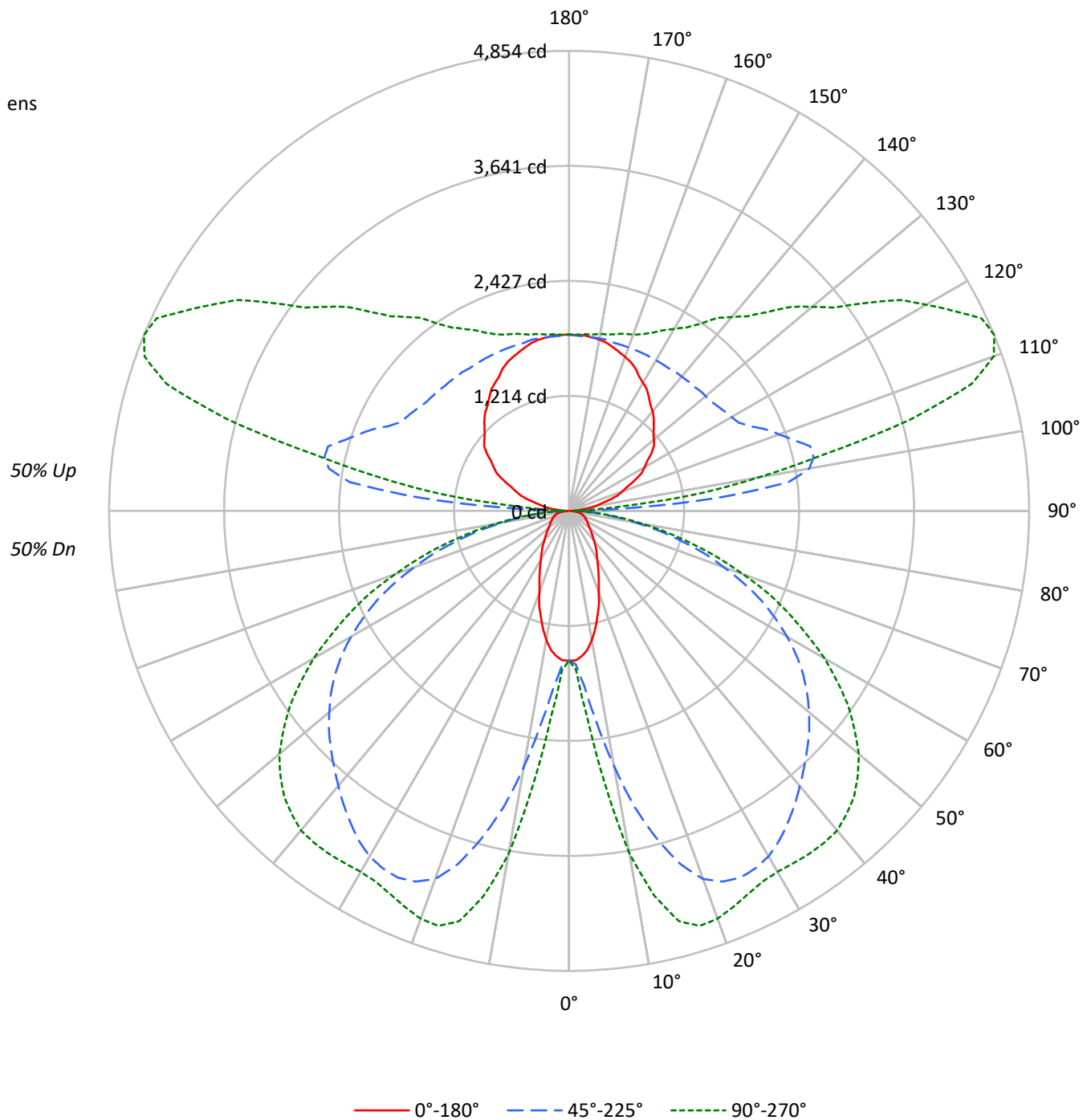
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24274.0 lumens
Efficiency: N/A
Efficacy: 117.6 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): 206.4
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				
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4884	4884	4884
5°	4772	5646	6564
10°	4331	8232	10882
15°	3682	10757	13140
20°	2999	12469	13392
25°	2502	13051	13120
30°	2111	13137	13095
35°	1868	12922	13434
40°	1628	12643	13784
45°	1475	12439	13838
50°	1355	12256	13609
55°	1299	11987	13005
60°	1331	11466	12053
65°	1387	10671	10744
70°	1481	9312	9077
75°	1647	7600	7083
80°	1813	5277	4773
85°	1646	2805	2443

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.2	0.8
10°-20°	905.2	3.7
20°-30°	1583.3	6.5
30°-40°	2038.1	8.4
40°-50°	2276.5	9.4
50°-60°	2180.4	9.0
60°-70°	1728.0	7.1
70°-80°	1016.1	4.2
80°-90°	289.4	1.2
90°-100°	906.3	3.7
100°-110°	2382.7	9.8
110°-120°	2470.6	10.2
120°-130°	1981.7	8.2
130°-140°	1555.0	6.4
140°-150°	1193.5	4.9
150°-160°	859.5	3.5
160°-170°	525.9	2.2
170°-180°	177.7	0.7
0°-30°	2692.7	11.1
0°-40°	4730.8	19.5
0°-60°	9187.7	37.8
0°-90°	12221.1	50.3
90°-120°	5759.6	23.7
90°-150°	10489.8	43.2
90°-180°	12053.0	49.7
0°-180°	24274.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1579	1579	1579	1579	1579	
5°	1538	1650	1858	2102	2178	142
15°	1152	2127	3584	4346	4483	321
25°	736	2411	4270	4457	4462	339
35°	498	2305	4021	4249	4417	311
45°	340	1838	3554	4072	4254	263
55°	244	1168	3016	3503	3599	222
65°	193	619	2239	2518	2554	191
75°	142	381	1229	1350	1356	149
85°	51	117	305	335	340	54
90°	12	35	95	47	47	14
95°	120	469	1561	805	548	133
105°	429	650	2634	3999	3731	455
115°	762	926	2110	4209	4804	753
125°	1061	1189	1919	3243	3826	942
135°	1264	1391	1859	2618	2969	978
145°	1466	1560	1836	2234	2408	919
155°	1657	1703	1836	2015	2074	761
165°	1788	1812	1836	1908	1932	505
175°	1859	1859	1848	1872	1872	176
180°	1859	1859	1859	1859	1859	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9	1578.9
2.5°	1578.9	1578.9	1589.0	1594.1	1604.2	1609.3	1619.5	1629.6	1660.1	1665.2	1675.3
5°	1538.2	1558.5	1624.5	1649.9	1721.0	1817.5	1858.1	1924.1	2061.1	2101.8	2127.1
7.5°	1477.3	1523.0	1685.5	1726.1	1903.8	2157.6	2264.2	2406.4	2624.7	2731.3	2817.6
10°	1380.9	1477.3	1766.7	1863.1	2152.5	2538.3	2736.3	2934.3	3264.3	3411.5	3467.4
12.5°	1274.3	1431.6	1853.0	1985.0	2401.3	2964.8	3203.4	3421.7	3797.4	3995.4	4025.8
15°	1152.4	1365.6	1934.2	2127.1	2665.3	3320.2	3584.1	3853.2	4203.5	4345.7	4381.2
17.5°	1045.8	1314.9	2010.4	2213.4	2868.3	3640.0	3909.1	4132.4	4416.7	4513.2	4538.6
20°	913.8	1233.6	2061.1	2325.1	3081.6	3873.5	4132.4	4305.0	4498.0	4558.9	4569.0
22.5°	817.3	1147.3	2091.6	2365.7	3223.7	4015.7	4234.0	4371.0	4503.0	4523.3	4528.4
25°	736.1	1050.9	2086.5	2411.4	3345.5	4102.0	4269.5	4371.0	4447.2	4457.3	4457.3
27.5°	660.0	944.3	2066.2	2421.6	3436.9	4122.3	4254.3	4325.3	4360.9	4381.2	4381.2
30°	594.0	842.7	2015.4	2401.3	3477.5	4102.0	4208.6	4244.1	4279.7	4310.1	4325.3
32.5°	543.2	746.3	1939.3	2360.7	3482.6	4051.2	4127.4	4147.7	4198.4	4269.5	4294.9
35°	497.5	649.8	1853.0	2304.8	3452.2	3970.0	4020.7	4041.1	4142.6	4249.2	4284.7
37.5°	451.8	578.7	1741.3	2208.4	3406.5	3873.5	3909.1	3944.6	4102.0	4228.9	4269.5
40°	406.1	517.8	1609.3	2101.8	3335.4	3756.8	3787.2	3843.1	4051.2	4198.4	4239.0
42.5°	370.6	467.1	1467.2	1990.1	3244.0	3624.8	3670.5	3751.7	3990.3	4147.7	4193.4
45°	340.1	416.3	1314.9	1837.8	3127.2	3487.7	3553.7	3665.4	3919.2	4071.5	4112.1
47.5°	309.7	380.8	1157.5	1680.4	3000.3	3350.6	3436.9	3563.8	3822.8	3970.0	4005.5
50°	284.3	345.2	1000.1	1512.9	2863.3	3203.4	3304.9	3436.9	3700.9	3838.0	3883.7
52.5°	264.0	314.8	852.9	1345.3	2705.9	3051.1	3167.9	3304.9	3553.7	3685.7	3716.1
55°	243.7	289.4	726.0	1167.6	2543.4	2888.6	3015.6	3147.6	3391.2	3502.9	3523.2
57.5°	233.5	269.1	619.4	1000.1	2370.8	2705.9	2848.0	2969.9	3198.3	3284.6	3304.9
60°	218.3	253.8	538.1	858.0	2183.0	2533.3	2655.1	2777.0	2969.9	3040.9	3056.2
62.5°	203.1	243.7	477.2	720.9	1990.1	2330.2	2452.0	2563.7	2726.2	2777.0	2797.3
65°	192.9	233.5	431.5	619.4	1792.1	2117.0	2238.8	2335.3	2467.3	2518.0	2528.2
67.5°	182.8	223.4	396.0	533.1	1594.1	1903.8	1995.1	2086.5	2188.1	2238.8	2243.9
70°	167.5	213.2	365.5	472.1	1391.0	1660.1	1736.2	1832.7	1913.9	1939.3	1954.5
72.5°	157.4	198.0	345.2	426.4	1182.9	1426.6	1497.6	1553.5	1624.5	1649.9	1649.9
75°	142.1	177.7	324.9	380.8	969.6	1167.6	1228.6	1284.4	1340.2	1350.4	1335.2
77.5°	126.9	157.4	279.2	319.8	756.4	924.0	974.7	1005.2	1050.9	1061.0	1066.1
80°	106.6	137.1	218.3	248.8	548.3	680.3	715.8	741.2	781.8	781.8	792.0
82.5°	81.2	106.6	157.4	177.7	370.6	467.1	497.5	512.7	538.1	538.1	538.1
85°	50.8	66.0	101.5	116.8	223.4	284.3	304.6	309.7	330.0	335.1	335.1
87.5°	25.4	35.5	66.0	71.1	116.8	147.2	147.2	157.4	157.4	152.3	147.2
90°	12.5	22.5	32.4	34.9	54.9	81.5	94.8	84.3	63.2	47.4	47.4
92.5°	49.9	134.7	219.6	240.8	338.6	468.9	534.1	468.1	336.1	237.1	227.7
95°	119.8	275.1	430.4	469.2	833.1	1318.4	1561.0	1393.0	1056.9	804.8	776.2
97.5°	207.1	344.1	481.1	515.4	1122.2	1931.3	2335.9	2229.7	2017.3	1858.0	1803.7
100°	274.5	398.7	522.9	554.0	1227.4	2125.3	2574.3	2582.1	2597.6	2609.2	2544.5
102.5°	331.9	447.8	563.7	592.7	1275.7	2186.4	2641.7	2777.0	3047.6	3250.6	3195.1
105°	429.3	527.4	625.6	650.1	1311.5	2193.3	2634.2	2937.6	3544.3	3999.3	3969.5
107.5°	529.1	620.6	712.1	735.0	1318.1	2095.6	2484.4	2907.6	3753.9	4388.6	4395.8
110°	596.5	679.1	761.7	782.4	1308.1	2009.1	2359.6	2832.7	3778.8	4488.4	4519.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	662.6	741.4	820.1	839.8	1308.6	1933.6	2246.1	2730.3	3698.6	4424.8	4472.5
115°	762.4	835.1	907.7	925.9	1320.6	1846.9	2110.1	2576.5	3509.3	4208.9	4275.0
117.5°	861.0	927.0	993.0	1009.5	1345.2	1792.7	2016.5	2437.4	3279.3	3910.7	3984.0
120°	918.4	980.5	1042.7	1058.2	1365.2	1774.5	1979.1	2363.7	3132.9	3709.8	3781.1
122.5°	974.6	1037.3	1099.9	1115.6	1393.9	1764.9	1950.4	2296.7	2989.4	3508.9	3579.2
125°	1060.7	1117.8	1174.9	1189.2	1432.5	1757.0	1919.2	2213.4	2801.8	3243.1	3307.8
127.5°	1130.5	1188.2	1245.9	1260.3	1471.2	1752.4	1893.0	2145.6	2650.8	3029.7	3084.3
130°	1168.0	1230.1	1292.2	1307.7	1499.5	1755.2	1883.0	2107.9	2557.7	2895.0	2945.5
132.5°	1206.7	1268.8	1330.9	1346.4	1522.3	1756.9	1874.2	2075.5	2478.2	2780.2	2825.4
135°	1264.1	1320.6	1377.2	1391.3	1547.3	1755.3	1859.3	2027.9	2365.0	2617.9	2656.9
137.5°	1322.7	1378.7	1434.7	1448.7	1584.7	1766.1	1856.8	1999.3	2284.4	2498.2	2530.1
140°	1371.4	1423.0	1474.5	1487.4	1607.6	1767.9	1848.0	1971.1	2217.4	2402.1	2431.9
142.5°	1408.8	1456.5	1504.2	1516.1	1626.7	1774.2	1848.0	1956.2	2172.5	2334.7	2360.3
145°	1466.2	1507.8	1549.4	1559.8	1651.7	1774.3	1835.6	1924.0	2100.9	2233.6	2253.0
147.5°	1523.6	1564.1	1604.6	1614.7	1688.3	1786.5	1835.6	1905.2	2044.4	2148.8	2164.9
150°	1561.0	1597.6	1634.2	1643.4	1707.5	1792.9	1835.6	1894.4	2011.9	2100.1	2113.1
152.5°	1599.7	1627.4	1655.2	1662.1	1719.9	1797.0	1835.6	1885.8	1986.1	2061.4	2071.2
155°	1657.1	1677.6	1698.2	1703.3	1747.4	1806.2	1835.6	1875.5	1955.3	2015.2	2021.7
157.5°	1699.5	1719.5	1739.5	1744.5	1774.9	1815.4	1835.6	1866.6	1928.7	1975.3	1979.9
160°	1728.2	1743.8	1759.3	1763.2	1787.3	1819.5	1835.6	1862.2	1915.4	1955.3	1957.9
162.5°	1756.9	1768.5	1780.2	1783.1	1800.6	1823.9	1835.6	1858.0	1902.9	1936.6	1939.1
165°	1788.1	1798.6	1809.2	1811.8	1819.7	1830.3	1835.6	1851.7	1883.8	1907.9	1910.5
167.5°	1816.8	1821.8	1826.8	1828.1	1834.7	1843.6	1848.0	1858.6	1879.7	1895.5	1896.6
170°	1835.6	1840.6	1845.6	1846.8	1847.2	1847.7	1848.0	1858.6	1879.7	1895.5	1895.5
172.5°	1845.5	1846.6	1847.7	1848.0	1848.0	1848.0	1848.0	1856.3	1873.0	1885.5	1884.5
175°	1859.3	1859.3	1859.3	1859.3	1855.5	1850.5	1848.0	1853.3	1863.8	1871.7	1871.7
177.5°	1859.3	1859.3	1859.3	1859.3	1856.4	1852.5	1850.5	1854.7	1863.0	1869.2	1868.1
180°	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1578.9	1578.9
2.5°	1685.5	1675.3
5°	2167.8	2177.9
7.5°	2919.1	2914.0
10°	3629.8	3675.5
12.5°	4147.7	4157.8
15°	4462.4	4482.7
17.5°	4584.3	4589.3
20°	4589.3	4579.2
22.5°	4533.5	4523.3
25°	4467.5	4462.4
27.5°	4406.6	4411.7
30°	4381.2	4396.4
32.5°	4381.2	4406.6
35°	4391.3	4416.7
37.5°	4386.3	4416.7
40°	4366.0	4401.5
42.5°	4310.1	4335.5
45°	4223.8	4254.3
47.5°	4112.1	4132.4
50°	3970.0	3990.3
52.5°	3792.3	3797.4
55°	3579.1	3599.4
57.5°	3350.6	3355.7
60°	3096.8	3112.0
62.5°	2827.7	2827.7
65°	2543.4	2553.6
67.5°	2249.0	2274.4
70°	1949.5	1954.5
72.5°	1655.0	1655.0
75°	1350.4	1355.5
77.5°	1061.0	1061.0
80°	786.9	792.0
82.5°	543.2	553.4
85°	340.1	340.1
87.5°	157.4	142.1
90°	47.4	47.4
92.5°	189.9	152.2
95°	662.0	547.8
97.5°	1586.3	1368.9
100°	2285.5	2026.5
102.5°	2973.3	2751.5
105°	3850.2	3731.0
107.5°	4424.7	4453.5
110°	4643.7	4768.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4663.3	4854.1
115°	4539.6	4804.1
117.5°	4277.4	4570.8
120°	4066.1	4351.2
122.5°	3860.3	4141.5
125°	3566.8	3825.8
127.5°	3302.9	3521.4
130°	3147.3	3349.2
132.5°	3006.2	3187.0
135°	2812.7	2968.6
137.5°	2657.6	2785.2
140°	2551.2	2670.4
142.5°	2462.9	2565.5
145°	2330.7	2408.3
147.5°	2229.2	2293.5
150°	2165.3	2217.4
152.5°	2110.6	2150.0
155°	2047.8	2073.9
157.5°	1998.2	2016.5
160°	1968.5	1979.1
162.5°	1949.1	1959.1
165°	1921.1	1931.6
167.5°	1901.0	1905.4
170°	1895.5	1895.5
172.5°	1880.6	1876.7
175°	1871.7	1871.7
177.5°	1863.7	1859.3
180°	1859.3	1859.3



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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	6.55	7.46	7.50	8.42	9.69	19.74	20.65	20.69	21.62	22.88
	3H	7.26	8.07	8.22	9.05	10.33	21.59	22.40	22.55	23.38	24.67
	4H	7.56	8.33	8.53	9.31	10.61	22.24	23.01	23.21	23.99	25.29
	6H	7.81	8.52	8.80	9.51	10.82	22.68	23.39	23.66	24.38	25.68
	8H	7.88	8.56	8.87	9.56	10.87	22.80	23.48	23.79	24.48	25.79
	12H	7.90	8.55	8.90	9.54	10.87	22.88	23.52	23.87	24.52	25.85
4H	2H	13.78	14.55	14.76	15.53	16.82	20.02	20.79	21.00	21.77	23.07
	3H	15.35	16.00	16.34	17.01	18.31	22.08	22.72	23.06	23.73	25.04
	4H	15.45	16.04	16.44	17.04	18.37	22.85	23.44	23.85	24.44	25.77
	6H	15.46	15.97	16.47	17.00	18.33	23.40	23.91	24.40	24.93	26.26
	8H	15.44	15.92	16.45	16.94	18.28	23.56	24.04	24.57	25.06	26.40
	12H	15.40	15.83	16.43	16.86	18.21	23.66	24.09	24.69	25.13	26.48
8H	4H	16.90	17.38	17.91	18.40	19.74	22.91	23.39	23.92	24.41	25.75
	6H	17.14	17.54	18.18	18.60	19.94	23.55	23.94	24.58	25.01	26.35
	8H	17.16	17.51	18.20	18.56	19.92	23.77	24.12	24.81	25.17	26.53
	12H	17.13	17.44	18.18	18.48	19.89	23.92	24.23	24.97	25.27	26.67
12H	4H	17.05	17.48	18.08	18.51	19.86	22.87	23.30	23.90	24.33	25.68
	6H	17.40	17.75	18.45	18.80	20.16	23.53	23.88	24.58	24.93	26.29
	8H	17.48	17.78	18.52	18.82	20.23	23.77	24.07	24.81	25.12	26.52