

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: P938445

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938445
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

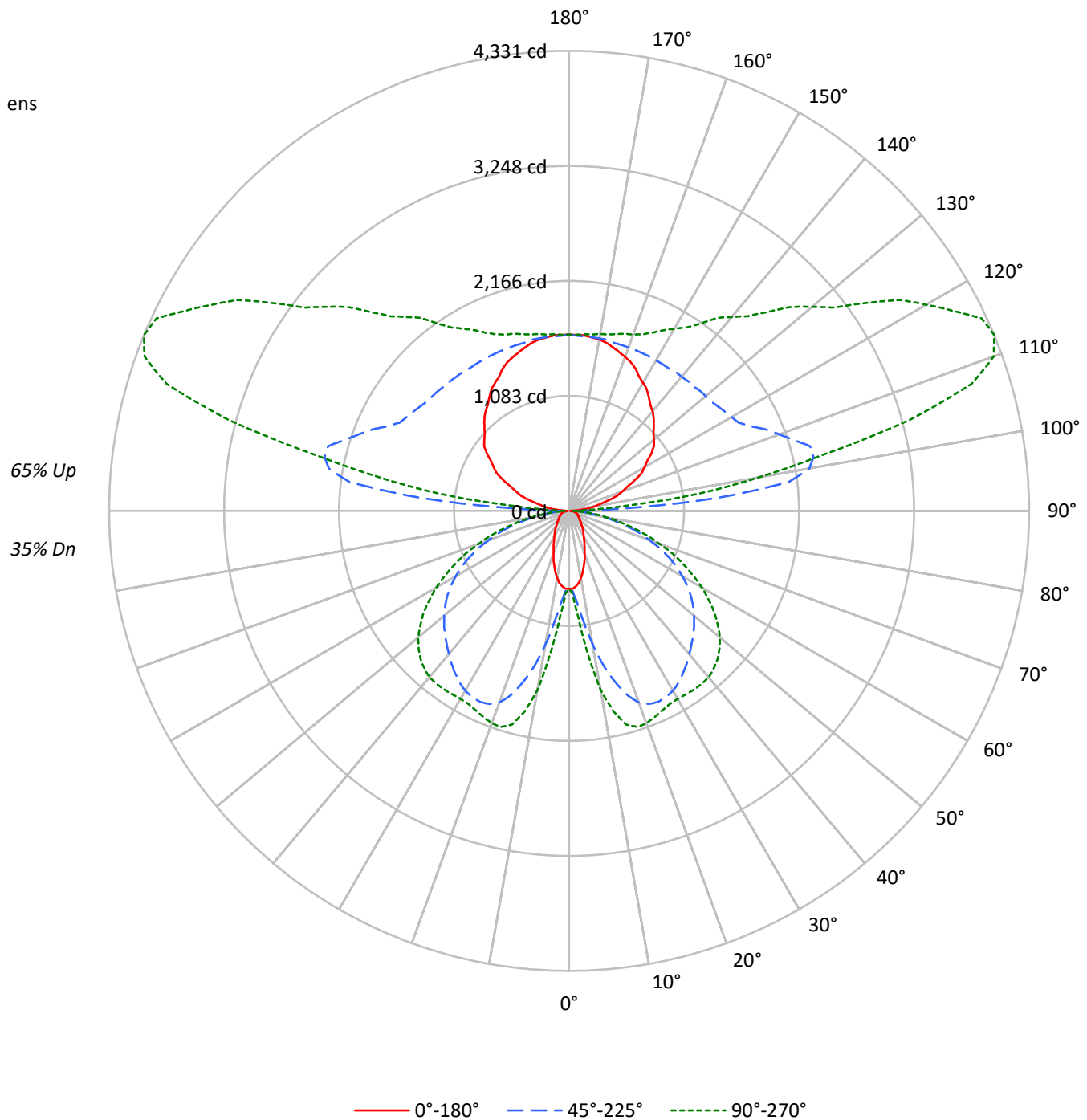
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16436.7 lumens
Efficiency: N/A
Efficacy: 113.5 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): 144.8
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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3404	3404	3404
5°	3325	3934	4575
10°	3016	5734	7585
15°	2564	7492	9159
20°	2087	8682	9334
25°	1741	9085	9144
30°	1468	9143	9127
35°	1298	8991	9363
40°	1131	8793	9607
45°	1025	8649	9645
50°	939	8519	9485
55°	900	8328	9065
60°	921	7963	8401
65°	958	7407	7489
70°	1020	6459	6326
75°	1132	5266	4937
80°	1235	3653	3327
85°	1099	1939	1703

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9645 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	0.6
10°-20°	420.6	2.6
20°-30°	735.7	4.5
30°-40°	947.0	5.8
40°-50°	1057.8	6.4
50°-60°	1013.1	6.2
60°-70°	802.9	4.9
70°-80°	472.1	2.9
80°-90°	137.5	0.8
90°-100°	808.7	4.9
100°-110°	2126.2	12.9
110°-120°	2204.6	13.4
120°-130°	1768.3	10.8
130°-140°	1387.5	8.4
140°-150°	1065.0	6.5
150°-160°	767.0	4.7
160°-170°	469.3	2.9
170°-180°	158.5	1.0
0°-30°	1251.2	7.6
0°-40°	2198.2	13.4
0°-60°	4269.1	26.0
0°-90°	5681.6	34.6
90°-120°	5139.5	31.3
90°-150°	9360.3	56.9
90°-180°	10755.0	65.4
0°-180°	16436.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	715	767	863	977	1012	66
15°	536	988	1665	2019	2083	149
25°	342	1120	1984	2071	2074	158
35°	231	1071	1868	1974	2052	144
45°	158	854	1651	1892	1977	122
55°	113	542	1401	1628	1672	103
65°	90	288	1040	1170	1187	89
75°	66	177	571	628	630	69
85°	24	54	142	156	158	25
90°	11	31	85	42	42	11
95°	107	419	1393	718	489	119
105°	383	580	2350	3569	3329	406
115°	680	826	1883	3756	4287	672
125°	946	1061	1712	2894	3414	840
135°	1128	1242	1659	2336	2649	873
145°	1308	1392	1638	1993	2149	820
155°	1479	1520	1638	1798	1851	679
165°	1596	1617	1638	1702	1724	450
175°	1659	1659	1649	1670	1670	157
180°	1659	1659	1659	1659	1659	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6
2.5°	733.6	733.6	738.4	740.7	745.4	747.7	752.5	757.2	771.4	773.7	778.5
5°	714.7	724.2	754.9	766.7	799.7	844.5	863.3	894.0	957.7	976.6	988.4
7.5°	686.4	707.7	783.2	802.0	884.6	1002.5	1052.0	1118.1	1219.6	1269.1	1309.2
10°	641.6	686.4	820.9	865.8	1000.2	1179.4	1271.4	1363.5	1516.7	1585.2	1611.1
12.5°	592.1	665.2	861.0	922.3	1115.8	1377.6	1488.4	1589.9	1764.4	1856.5	1870.6
15°	535.5	634.6	898.8	988.4	1238.4	1542.7	1665.4	1790.4	1953.1	2019.2	2035.7
17.5°	485.9	611.0	934.1	1028.5	1332.8	1691.3	1816.4	1920.1	2052.2	2097.0	2108.9
20°	424.6	573.2	957.7	1080.3	1431.9	1799.9	1920.1	2000.4	2090.0	2118.3	2123.0
22.5°	379.8	533.1	971.9	1099.3	1497.9	1865.9	1967.3	2031.0	2092.4	2101.8	2104.2
25°	342.1	488.3	969.5	1120.5	1554.5	1906.0	1983.8	2031.0	2066.4	2071.1	2071.1
27.5°	306.6	438.7	960.1	1125.2	1597.0	1915.5	1976.8	2009.8	2026.3	2035.7	2035.7
30°	276.0	391.6	936.4	1115.8	1615.8	1906.0	1955.6	1972.1	1988.6	2002.7	2009.8
32.5°	252.4	346.8	901.1	1096.9	1618.2	1882.4	1917.8	1927.3	1950.8	1983.8	1995.6
35°	231.2	302.0	861.0	1071.0	1604.0	1844.7	1868.3	1877.7	1924.8	1974.4	1990.9
37.5°	209.9	268.9	809.1	1026.2	1582.8	1799.9	1816.4	1832.9	1906.0	1964.9	1983.8
40°	188.7	240.7	747.7	976.6	1549.8	1745.6	1759.7	1785.7	1882.4	1950.8	1969.7
42.5°	172.2	217.0	681.7	924.7	1507.4	1684.3	1705.5	1743.2	1854.1	1927.3	1948.5
45°	158.1	193.4	611.0	853.9	1453.1	1620.6	1651.3	1703.1	1821.0	1891.8	1910.7
47.5°	143.9	176.9	537.8	780.8	1394.1	1556.9	1597.0	1656.0	1776.2	1844.7	1861.2
50°	132.1	160.4	464.7	702.9	1330.5	1488.4	1535.7	1597.0	1719.6	1783.4	1804.5
52.5°	122.6	146.2	396.3	625.1	1257.3	1417.7	1471.9	1535.7	1651.3	1712.6	1726.7
55°	113.2	134.4	337.3	542.5	1181.8	1342.2	1401.1	1462.6	1575.7	1627.6	1637.1
57.5°	108.5	125.1	287.8	464.7	1101.6	1257.3	1323.3	1380.0	1486.1	1526.2	1535.7
60°	101.4	117.9	250.0	398.6	1014.4	1177.1	1233.7	1290.3	1380.0	1413.0	1420.1
62.5°	94.3	113.2	221.7	335.0	924.7	1082.7	1139.3	1191.3	1266.7	1290.3	1299.7
65°	89.6	108.5	200.5	287.8	832.7	983.7	1040.3	1085.1	1146.4	1170.0	1174.8
67.5°	84.9	103.8	184.0	247.7	740.7	884.6	927.1	969.5	1016.7	1040.3	1042.7
70°	77.8	99.1	169.9	219.4	646.3	771.4	806.7	851.6	889.3	901.1	908.2
72.5°	73.1	92.0	160.4	198.2	549.6	662.9	695.9	721.9	754.9	766.7	766.7
75°	66.1	82.6	150.9	176.9	450.6	542.5	570.8	596.8	622.8	627.5	620.4
77.5°	59.0	73.1	129.7	148.6	351.5	429.4	452.9	467.0	488.3	493.0	495.4
80°	49.5	63.7	101.4	115.6	254.8	316.1	332.6	344.4	363.3	363.3	368.0
82.5°	37.8	49.5	73.1	82.6	172.2	217.0	231.2	238.2	250.0	250.0	250.0
85°	23.6	30.7	47.2	54.3	103.8	132.1	141.6	143.9	153.4	155.7	155.7
87.5°	11.8	16.5	30.7	33.0	54.3	68.4	68.4	73.1	73.1	70.8	68.4
90°	11.2	20.1	28.9	31.2	49.0	72.7	84.6	75.2	56.4	42.3	42.3
92.5°	44.5	120.2	196.0	214.9	302.2	418.5	476.6	417.7	299.9	211.6	203.2
95°	106.9	245.5	384.0	418.6	743.4	1176.4	1392.9	1243.0	943.1	718.2	692.7
97.5°	184.9	307.1	429.4	459.9	1001.4	1723.5	2084.4	1989.6	1800.1	1658.0	1609.5
100°	244.9	355.8	466.7	494.4	1095.3	1896.5	2297.1	2304.0	2317.9	2328.2	2270.5
102.5°	296.2	399.6	503.0	528.9	1138.4	1950.9	2357.2	2478.0	2719.5	2900.6	2851.1
105°	383.0	470.6	558.2	580.1	1170.2	1957.1	2350.5	2621.3	3162.6	3568.7	3542.1
107.5°	472.1	553.8	635.4	655.8	1176.2	1870.0	2216.9	2594.5	3349.7	3916.1	3922.5
110°	532.3	606.0	679.7	698.1	1167.3	1792.8	2105.6	2527.7	3372.0	4005.2	4032.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	591.3	661.5	731.8	749.4	1167.6	1725.3	2004.2	2436.2	3300.3	3948.3	3990.9
115°	680.4	745.2	810.0	826.2	1178.4	1648.0	1882.9	2299.0	3131.4	3755.7	3814.7
117.5°	768.3	827.2	886.1	900.8	1200.3	1599.7	1799.3	2175.0	2926.2	3489.6	3555.0
120°	819.5	874.9	930.4	944.2	1218.2	1583.3	1766.0	2109.2	2795.6	3310.4	3373.9
122.5°	869.6	925.6	981.4	995.4	1243.8	1574.8	1740.3	2049.4	2667.5	3131.0	3193.8
125°	946.4	997.4	1048.4	1061.1	1278.2	1567.7	1712.5	1975.0	2500.1	2893.9	2951.6
127.5°	1008.8	1060.3	1111.8	1124.6	1312.8	1563.7	1689.1	1914.5	2365.4	2703.5	2752.2
130°	1042.2	1097.7	1153.1	1166.9	1338.0	1566.1	1680.2	1880.8	2282.3	2583.2	2628.3
132.5°	1076.8	1132.2	1187.6	1201.5	1358.5	1567.8	1672.4	1852.0	2211.3	2480.8	2521.1
135°	1127.9	1178.4	1229.0	1241.5	1380.7	1566.3	1659.0	1809.5	2110.4	2336.1	2370.8
137.5°	1180.3	1230.3	1280.2	1292.7	1414.1	1575.9	1656.9	1784.1	2038.4	2229.1	2257.6
140°	1223.7	1269.8	1315.7	1327.2	1434.5	1577.5	1649.0	1758.9	1978.7	2143.4	2170.0
142.5°	1257.1	1299.7	1342.2	1352.9	1451.6	1583.2	1649.0	1745.5	1938.5	2083.3	2106.1
145°	1308.3	1345.4	1382.6	1391.9	1473.9	1583.2	1637.9	1716.8	1874.7	1993.1	2010.4
147.5°	1359.5	1395.7	1431.9	1440.9	1506.6	1594.1	1637.9	1700.0	1824.2	1917.3	1931.7
150°	1392.9	1425.6	1458.3	1466.4	1523.5	1599.8	1637.9	1690.4	1795.2	1874.0	1885.6
152.5°	1427.5	1452.2	1477.0	1483.2	1534.8	1603.5	1637.9	1682.7	1772.2	1839.4	1848.2
155°	1478.7	1497.0	1515.3	1519.9	1559.2	1611.6	1637.9	1673.5	1744.8	1798.3	1804.1
157.5°	1516.6	1534.4	1552.2	1556.6	1583.7	1619.8	1637.9	1665.6	1721.1	1762.7	1766.8
160°	1542.2	1556.0	1569.9	1573.3	1594.8	1623.5	1637.9	1661.6	1709.2	1744.8	1747.1
162.5°	1567.8	1578.2	1588.6	1591.2	1606.7	1627.5	1637.9	1658.0	1698.0	1728.1	1730.3
165°	1595.6	1604.9	1614.4	1616.7	1623.8	1633.1	1637.9	1652.2	1681.0	1702.5	1704.8
167.5°	1621.2	1625.6	1630.1	1631.3	1637.2	1645.1	1649.0	1658.4	1677.2	1691.3	1692.3
170°	1637.9	1642.3	1646.8	1648.0	1648.3	1648.8	1649.0	1658.4	1677.2	1691.3	1691.3
172.5°	1646.8	1647.8	1648.8	1649.0	1649.0	1649.0	1649.0	1656.4	1671.3	1682.4	1681.5
175°	1659.0	1659.0	1659.0	1659.0	1655.7	1651.3	1649.0	1653.8	1663.1	1670.2	1670.2
177.5°	1659.0	1659.0	1659.0	1659.0	1656.4	1653.0	1651.3	1655.0	1662.4	1667.9	1667.0
180°	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0	1659.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	733.6	733.6
2.5°	783.2	778.5
5°	1007.2	1012.0
7.5°	1356.3	1354.0
10°	1686.6	1707.8
12.5°	1927.3	1932.0
15°	2073.5	2082.9
17.5°	2130.1	2132.5
20°	2132.5	2127.7
22.5°	2106.5	2101.8
25°	2075.9	2073.5
27.5°	2047.5	2049.9
30°	2035.7	2042.9
32.5°	2035.7	2047.5
35°	2040.4	2052.2
37.5°	2038.1	2052.2
40°	2028.7	2045.2
42.5°	2002.7	2014.5
45°	1962.6	1976.8
47.5°	1910.7	1920.1
50°	1844.7	1854.1
52.5°	1762.1	1764.4
55°	1663.0	1672.5
57.5°	1556.9	1559.2
60°	1438.9	1446.0
62.5°	1313.9	1313.9
65°	1181.8	1186.6
67.5°	1045.0	1056.8
70°	905.8	908.2
72.5°	769.0	769.0
75°	627.5	629.8
77.5°	493.0	493.0
80°	365.6	368.0
82.5°	252.4	257.2
85°	158.1	158.1
87.5°	73.1	66.1
90°	42.3	42.3
92.5°	169.5	135.9
95°	590.7	488.8
97.5°	1415.4	1221.5
100°	2039.4	1808.3
102.5°	2653.1	2455.2
105°	3435.7	3329.3
107.5°	3948.2	3973.9
110°	4143.7	4254.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4161.1	4331.3
115°	4050.8	4286.8
117.5°	3816.8	4078.6
120°	3628.3	3882.6
122.5°	3444.7	3695.6
125°	3182.8	3413.9
127.5°	2947.3	3142.2
130°	2808.5	2988.6
132.5°	2682.4	2843.8
135°	2509.9	2648.9
137.5°	2371.4	2485.2
140°	2276.4	2382.8
142.5°	2197.7	2289.3
145°	2079.7	2149.0
147.5°	1989.1	2046.5
150°	1932.2	1978.7
152.5°	1883.3	1918.5
155°	1827.4	1850.6
157.5°	1783.0	1799.3
160°	1756.6	1766.0
162.5°	1739.2	1748.1
165°	1714.3	1723.6
167.5°	1696.3	1700.3
170°	1691.3	1691.3
172.5°	1678.1	1674.6
175°	1670.2	1670.2
177.5°	1663.0	1659.0
180°	1659.0	1659.0



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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	3.65	4.42	4.73	5.49	6.97	16.83	17.59	17.90	18.67	20.15
	3H	4.35	5.04	5.43	6.12	7.61	18.66	19.35	19.75	20.43	21.92
	4H	4.65	5.29	5.74	6.38	7.88	19.30	19.95	20.40	21.04	22.54
	6H	4.89	5.49	5.99	6.58	8.09	19.73	20.33	20.83	21.42	22.93
	8H	4.96	5.53	6.06	6.63	8.14	19.85	20.42	20.95	21.52	23.03
	12H	4.97	5.51	6.08	6.61	8.14	19.91	20.45	21.02	21.55	23.08
4H	2H	10.86	11.51	11.96	12.59	14.09	17.09	17.74	18.19	18.83	20.33
	3H	12.41	12.96	13.52	14.07	15.58	19.13	19.67	20.24	20.79	22.30
	4H	12.50	13.00	13.62	14.11	15.64	19.89	20.39	21.00	21.50	23.03
	6H	12.51	12.94	13.63	14.07	15.59	20.43	20.85	21.55	21.98	23.50
	8H	12.48	12.88	13.60	14.00	15.54	20.59	20.99	21.70	22.11	23.65
	12H	12.43	12.80	13.57	13.93	15.48	20.67	21.04	21.81	22.17	23.71
8H	4H	13.94	14.34	15.06	15.46	17.00	19.94	20.34	21.06	21.46	23.00
	6H	14.18	14.51	15.32	15.67	17.21	20.57	20.90	21.71	22.06	23.60
	8H	14.19	14.49	15.34	15.63	17.18	20.79	21.08	21.93	22.22	23.78
	12H	14.16	14.41	15.31	15.55	17.14	20.93	21.18	22.08	22.32	23.91
12H	4H	14.08	14.44	15.22	15.57	17.12	19.89	20.26	21.03	21.39	22.93
	6H	14.44	14.73	15.58	15.87	17.42	20.55	20.84	21.70	21.98	23.54
	8H	14.50	14.76	15.65	15.89	17.49	20.78	21.03	21.93	22.17	23.76