

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: P938444

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938444
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-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

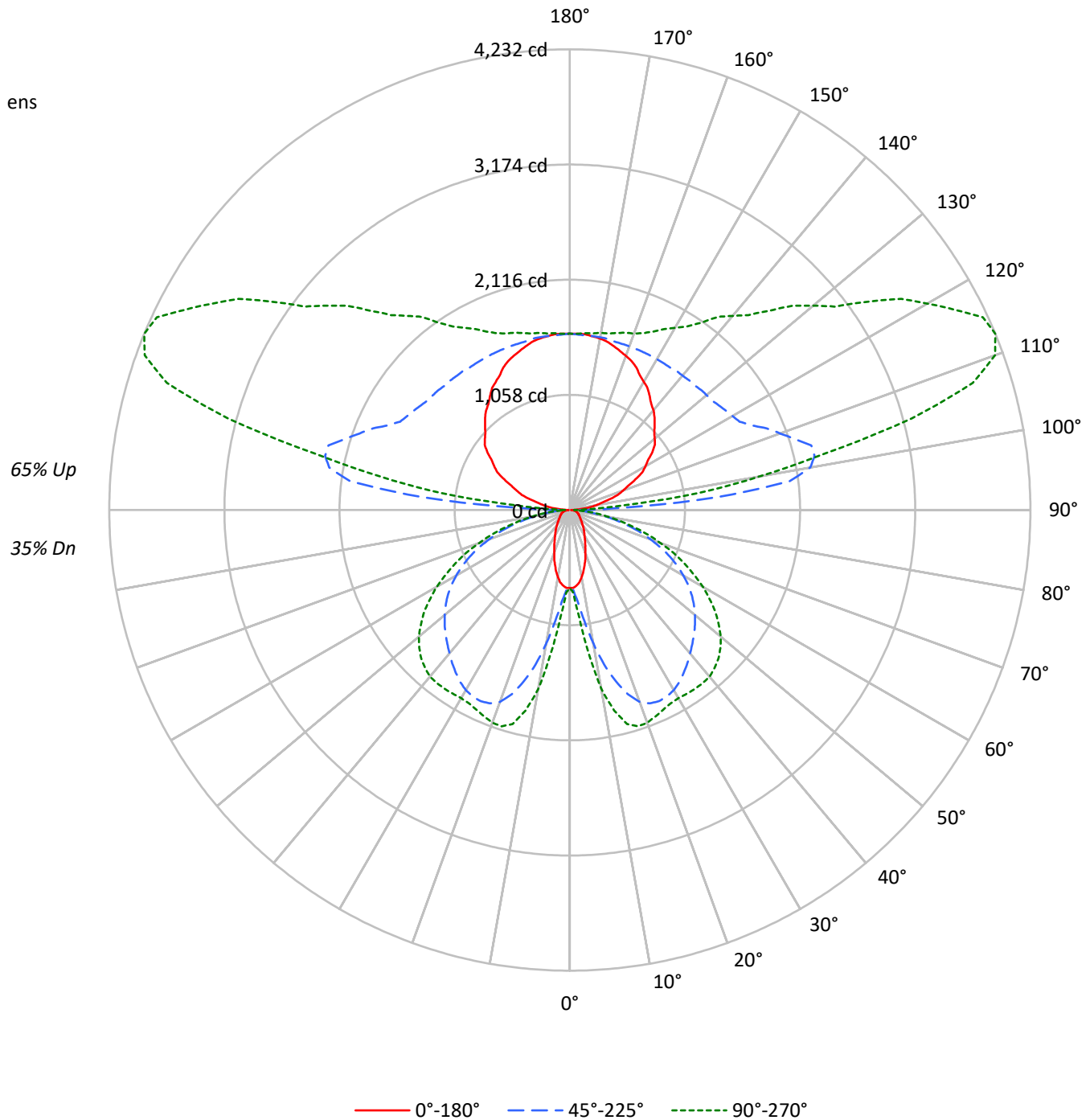
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16057.6 lumens
Efficiency: N/A
Efficacy: 110.9 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): 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

TEST NUMBER: P938444
CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-3000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3325	3325	3325
5°	3248	3843	4469
10°	2946	5602	7410
15°	2504	7319	8947
20°	2039	8482	9119
25°	1701	8876	8933
30°	1434	8932	8917
35°	1268	8784	9147
40°	1105	8591	9385
45°	1001	8450	9422
50°	918	8322	9266
55°	879	8136	8855
60°	900	7779	8207
65°	937	7236	7316
70°	997	6310	6180
75°	1105	5145	4823
80°	1208	3568	3250
85°	1071	1894	1663

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9422 cd/sqm



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CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	0.6
10°-20°	410.9	2.6
20°-30°	718.7	4.5
30°-40°	925.2	5.8
40°-50°	1033.4	6.4
50°-60°	989.8	6.2
60°-70°	784.4	4.9
70°-80°	461.2	2.9
80°-90°	134.3	0.8
90°-100°	790.1	4.9
100°-110°	2077.1	12.9
110°-120°	2153.8	13.4
120°-130°	1727.6	10.8
130°-140°	1355.5	8.4
140°-150°	1040.4	6.5
150°-160°	749.3	4.7
160°-170°	458.4	2.9
170°-180°	154.9	1.0
0°-30°	1222.3	7.6
0°-40°	2147.5	13.4
0°-60°	4170.6	26.0
0°-90°	5550.6	34.6
90°-120°	5020.9	31.3
90°-150°	9144.4	56.9
90°-180°	10507.0	65.4
0°-180°	16057.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	698	749	843	954	989	64
15°	523	966	1627	1973	2035	146
25°	334	1095	1938	2023	2026	154
35°	226	1046	1825	1929	2005	141
45°	154	834	1613	1848	1931	119
55°	111	530	1369	1590	1634	101
65°	88	281	1016	1143	1159	87
75°	64	173	558	613	615	68
85°	23	53	138	152	154	24
90°	11	30	83	41	41	11
95°	104	409	1361	702	478	116
105°	374	567	2296	3486	3252	397
115°	665	807	1840	3669	4188	656
125°	925	1037	1673	2827	3335	821
135°	1102	1213	1621	2282	2588	853
145°	1278	1360	1600	1947	2099	801
155°	1445	1485	1600	1757	1808	664
165°	1559	1579	1600	1663	1684	440
175°	1621	1621	1611	1632	1632	154
180°	1621	1621	1621	1621	1621	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7	716.7
2.5°	716.7	716.7	721.3	723.6	728.2	730.5	735.1	739.7	753.6	755.9	760.5
5°	698.2	707.5	737.5	749.0	781.3	825.0	843.4	873.4	935.6	954.1	965.6
7.5°	670.6	691.3	765.1	783.5	864.2	979.4	1027.8	1092.3	1191.5	1239.9	1279.0
10°	626.8	670.6	802.0	845.8	977.1	1152.2	1242.1	1332.0	1481.8	1548.6	1573.9
12.5°	578.4	649.8	841.2	901.1	1090.0	1345.8	1454.1	1553.3	1723.7	1813.7	1827.4
15°	523.1	619.9	878.1	965.6	1209.9	1507.1	1627.0	1749.1	1908.1	1972.6	1988.8
17.5°	474.7	596.9	912.6	1004.8	1302.0	1652.3	1774.5	1875.8	2004.9	2048.7	2060.3
20°	414.8	560.0	935.6	1055.4	1398.8	1758.4	1875.8	1954.2	2041.8	2069.4	2074.0
22.5°	371.1	520.8	949.5	1073.9	1463.4	1822.9	1922.0	1984.1	2044.1	2053.3	2055.6
25°	334.2	477.0	947.1	1094.7	1518.6	1862.1	1938.1	1984.1	2018.8	2023.4	2023.4
27.5°	299.5	428.6	938.0	1099.3	1560.2	1871.3	1931.2	1963.5	1979.6	1988.8	1988.8
30°	269.6	382.6	914.9	1090.0	1578.6	1862.1	1910.5	1926.6	1942.7	1956.5	1963.5
32.5°	246.6	338.8	880.3	1071.6	1580.9	1839.0	1873.6	1882.8	1905.8	1938.1	1949.6
35°	225.9	295.0	841.2	1046.3	1567.0	1802.1	1825.2	1834.4	1880.5	1928.9	1945.0
37.5°	205.1	262.7	790.4	1002.5	1546.3	1758.4	1774.5	1790.6	1862.1	1919.6	1938.1
40°	184.3	235.1	730.5	954.1	1514.0	1705.3	1719.1	1744.5	1839.0	1905.8	1924.2
42.5°	168.2	212.0	666.0	903.3	1472.6	1645.4	1666.2	1703.0	1811.3	1882.8	1903.6
45°	154.4	189.0	596.9	834.2	1419.6	1583.2	1613.2	1663.8	1779.0	1848.2	1866.7
47.5°	140.6	172.8	525.4	762.8	1361.9	1521.0	1560.2	1617.8	1735.3	1802.1	1818.3
50°	129.1	156.7	454.0	686.7	1299.8	1454.1	1500.2	1560.2	1680.0	1742.2	1762.9
52.5°	119.8	142.8	387.2	610.7	1228.3	1385.0	1438.0	1500.2	1613.2	1673.1	1686.9
55°	110.6	131.3	329.5	530.0	1154.6	1311.3	1368.8	1428.8	1539.4	1590.1	1599.3
57.5°	106.0	122.2	281.1	454.0	1076.2	1228.3	1292.8	1348.2	1451.8	1491.0	1500.2
60°	99.1	115.2	244.3	389.5	991.0	1150.0	1205.2	1260.5	1348.2	1380.4	1387.3
62.5°	92.2	110.6	216.6	327.3	903.3	1057.8	1113.1	1163.8	1237.5	1260.5	1269.8
65°	87.6	106.0	195.9	281.1	813.5	961.0	1016.3	1060.0	1120.0	1143.1	1147.7
67.5°	82.9	101.4	179.7	242.0	723.6	864.2	905.7	947.1	993.2	1016.3	1018.6
70°	76.0	96.8	165.9	214.3	631.4	753.6	788.1	831.9	868.8	880.3	887.2
72.5°	71.4	89.9	156.7	193.6	536.9	647.6	679.8	705.2	737.5	749.0	749.0
75°	64.5	80.7	147.5	172.8	440.2	530.0	557.7	583.0	608.4	613.0	606.1
77.5°	57.6	71.4	126.7	145.2	343.4	419.4	442.5	456.2	477.0	481.6	484.0
80°	48.4	62.3	99.1	112.9	248.9	308.8	324.9	336.4	354.9	354.9	359.5
82.5°	36.9	48.4	71.4	80.7	168.2	212.0	225.9	232.7	244.3	244.3	244.3
85°	23.0	30.0	46.1	53.0	101.4	129.1	138.3	140.6	149.8	152.1	152.1
87.5°	11.5	16.1	30.0	32.3	53.0	66.8	66.8	71.4	71.4	69.2	66.8
90°	10.9	19.6	28.3	30.4	47.9	71.1	82.7	73.5	55.1	41.3	41.3
92.5°	43.5	117.5	191.5	210.0	295.2	408.8	465.6	408.0	293.0	206.7	198.5
95°	104.5	239.8	375.1	409.0	726.2	1149.3	1360.8	1214.3	921.4	701.6	676.7
97.5°	180.6	300.0	419.4	449.3	978.3	1683.7	2036.4	1943.8	1758.6	1619.7	1572.4
100°	239.3	347.6	455.9	483.0	1070.1	1852.7	2244.1	2250.9	2264.4	2274.5	2218.1
102.5°	289.3	390.4	491.4	516.7	1112.1	1905.9	2302.9	2420.9	2656.7	2833.7	2785.4
105°	374.2	459.7	545.4	566.7	1143.2	1911.9	2296.3	2560.8	3089.7	3486.4	3460.4
107.5°	461.2	541.0	620.7	640.7	1149.1	1826.9	2165.8	2534.7	3272.5	3825.8	3832.1
110°	520.0	592.0	664.1	682.0	1140.4	1751.5	2057.0	2469.4	3294.2	3912.8	3939.8



TEST NUMBER: P938444

CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-8-3000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	577.6	646.3	714.9	732.1	1140.7	1685.6	1958.0	2380.0	3224.2	3857.3	3898.9
115°	664.7	728.0	791.3	807.2	1151.3	1610.0	1839.5	2246.0	3059.2	3669.1	3726.7
117.5°	750.6	808.1	865.7	880.1	1172.6	1562.8	1757.8	2124.8	2858.7	3409.1	3473.0
120°	800.6	854.8	908.9	922.4	1190.1	1546.8	1725.2	2060.5	2731.1	3234.0	3296.1
122.5°	849.5	904.2	958.8	972.5	1215.1	1538.5	1700.2	2002.1	2606.0	3058.8	3120.1
125°	924.6	974.4	1024.2	1036.7	1248.8	1531.6	1673.0	1929.5	2442.4	2827.1	2883.6
127.5°	985.6	1035.8	1086.1	1098.7	1282.5	1527.6	1650.1	1870.3	2310.8	2641.1	2688.7
130°	1018.2	1072.3	1126.5	1140.0	1307.2	1530.0	1641.4	1837.5	2229.6	2523.7	2567.7
132.5°	1051.9	1106.1	1160.2	1173.8	1327.1	1531.6	1633.8	1809.3	2160.3	2423.6	2463.0
135°	1101.9	1151.3	1200.6	1212.9	1348.9	1530.2	1620.8	1767.8	2061.7	2282.2	2316.1
137.5°	1153.1	1201.9	1250.7	1262.9	1381.5	1539.6	1618.7	1742.9	1991.4	2177.7	2205.5
140°	1195.5	1240.5	1285.4	1296.6	1401.4	1541.1	1611.0	1718.3	1933.0	2094.0	2120.0
142.5°	1228.1	1269.7	1311.3	1321.7	1418.1	1546.7	1611.0	1705.3	1893.8	2035.2	2057.6
145°	1278.1	1314.4	1350.7	1359.8	1439.9	1546.7	1600.1	1677.2	1831.4	1947.2	1964.1
147.5°	1328.2	1363.5	1398.8	1407.6	1471.8	1557.4	1600.1	1660.8	1782.1	1873.1	1887.2
150°	1360.8	1392.7	1424.6	1432.6	1488.4	1562.9	1600.1	1651.4	1753.8	1830.7	1842.1
152.5°	1394.6	1418.7	1443.0	1449.0	1499.4	1566.5	1600.1	1643.9	1731.3	1797.0	1805.5
155°	1444.6	1462.5	1480.4	1484.8	1523.3	1574.5	1600.1	1634.9	1704.6	1756.8	1762.5
157.5°	1481.6	1499.0	1516.4	1520.7	1547.2	1582.5	1600.1	1627.2	1681.4	1722.0	1726.0
160°	1506.6	1520.1	1533.6	1537.0	1558.1	1586.1	1600.1	1623.3	1669.8	1704.6	1706.8
162.5°	1531.6	1541.8	1552.0	1554.5	1569.7	1590.0	1600.1	1619.7	1658.9	1688.3	1690.4
165°	1558.8	1567.9	1577.2	1579.4	1586.3	1595.5	1600.1	1614.1	1642.2	1663.2	1665.5
167.5°	1583.8	1588.1	1592.5	1593.6	1599.4	1607.2	1611.0	1620.2	1638.6	1652.3	1653.3
170°	1600.1	1604.5	1608.8	1609.9	1610.3	1610.7	1611.0	1620.2	1638.6	1652.3	1652.3
172.5°	1608.8	1609.8	1610.7	1611.0	1611.0	1611.0	1611.0	1618.2	1632.7	1643.6	1642.7
175°	1620.8	1620.8	1620.8	1620.8	1617.5	1613.2	1611.0	1615.6	1624.8	1631.7	1631.7
177.5°	1620.8	1620.8	1620.8	1620.8	1618.2	1614.8	1613.2	1616.8	1624.1	1629.5	1628.5
180°	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8	1620.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	716.7	716.7
2.5°	765.1	760.5
5°	984.0	988.6
7.5°	1325.1	1322.8
10°	1647.7	1668.5
12.5°	1882.8	1887.4
15°	2025.6	2034.9
17.5°	2080.9	2083.3
20°	2083.3	2078.7
22.5°	2057.9	2053.3
25°	2028.0	2025.6
27.5°	2000.3	2002.6
30°	1988.8	1995.7
32.5°	1988.8	2000.3
35°	1993.4	2004.9
37.5°	1991.1	2004.9
40°	1981.9	1998.0
42.5°	1956.5	1968.0
45°	1917.3	1931.2
47.5°	1866.7	1875.8
50°	1802.1	1811.3
52.5°	1721.5	1723.7
55°	1624.7	1633.9
57.5°	1521.0	1523.3
60°	1405.7	1412.7
62.5°	1283.6	1283.6
65°	1154.6	1159.2
67.5°	1020.9	1032.4
70°	884.9	887.2
72.5°	751.3	751.3
75°	613.0	615.3
77.5°	481.6	481.6
80°	357.2	359.5
82.5°	246.6	251.2
85°	154.4	154.4
87.5°	71.4	64.5
90°	41.3	41.3
92.5°	165.6	132.7
95°	577.1	477.5
97.5°	1382.8	1193.3
100°	1992.3	1766.6
102.5°	2591.9	2398.6
105°	3356.5	3252.5
107.5°	3857.2	3882.3
110°	4048.2	4156.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4065.2	4231.5
115°	3957.4	4187.9
117.5°	3728.8	3984.6
120°	3544.6	3793.1
122.5°	3365.3	3610.4
125°	3109.4	3335.2
127.5°	2879.3	3069.7
130°	2743.7	2919.7
132.5°	2620.5	2778.2
135°	2452.0	2587.8
137.5°	2316.7	2427.9
140°	2223.9	2327.9
142.5°	2147.0	2236.5
145°	2031.8	2099.4
147.5°	1943.2	1999.3
150°	1887.6	1933.0
152.5°	1839.9	1874.3
155°	1785.2	1807.9
157.5°	1741.9	1757.8
160°	1716.1	1725.2
162.5°	1699.1	1707.8
165°	1674.7	1683.9
167.5°	1657.2	1661.1
170°	1652.3	1652.3
172.5°	1639.4	1636.0
175°	1631.7	1631.7
177.5°	1624.6	1620.8
180°	1620.8	1620.8



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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	3.57	4.33	4.64	5.41	6.88	16.75	17.51	17.82	18.59	20.06
	3H	4.27	4.95	5.35	6.04	7.53	18.58	19.27	19.66	20.35	21.84
	4H	4.56	5.21	5.66	6.30	7.80	19.22	19.87	20.32	20.96	22.46
	6H	4.81	5.41	5.91	6.50	8.01	19.65	20.25	20.75	21.34	22.85
	8H	4.87	5.44	5.98	6.55	8.05	19.77	20.34	20.87	21.44	22.95
	12H	4.89	5.43	6.00	6.53	8.06	19.83	20.37	20.94	21.47	23.00
4H	2H	10.77	11.42	11.87	12.51	14.01	17.01	17.66	18.11	18.75	20.25
	3H	12.33	12.88	13.44	13.99	15.50	19.05	19.59	20.16	20.71	22.22
	4H	12.42	12.92	13.54	14.03	15.56	19.81	20.31	20.92	21.42	22.95
	6H	12.43	12.86	13.55	13.99	15.51	20.34	20.77	21.46	21.90	23.42
	8H	12.40	12.80	13.52	13.92	15.46	20.50	20.90	21.62	22.02	23.56
	12H	12.35	12.72	13.49	13.85	15.39	20.59	20.96	21.73	22.09	23.63
8H	4H	13.86	14.26	14.98	15.38	16.92	19.86	20.26	20.98	21.38	22.92
	6H	14.10	14.43	15.24	15.59	17.13	20.49	20.82	21.63	21.98	23.52
	8H	14.11	14.40	15.26	15.55	17.10	20.71	21.00	21.85	22.14	23.69
	12H	14.08	14.33	15.23	15.47	17.06	20.85	21.10	22.00	22.24	23.83
12H	4H	14.00	14.36	15.13	15.49	17.04	19.81	20.17	20.95	21.31	22.85
	6H	14.35	14.65	15.50	15.79	17.34	20.47	20.76	21.62	21.90	23.46
	8H	14.42	14.67	15.57	15.81	17.40	20.69	20.95	21.85	22.09	23.68