

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: P938045

Luminaire Tested: SQ4-FB-125U-100D-92765-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938045
REPORT IS A COMBINATION OF REPORTS P933615 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-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: -

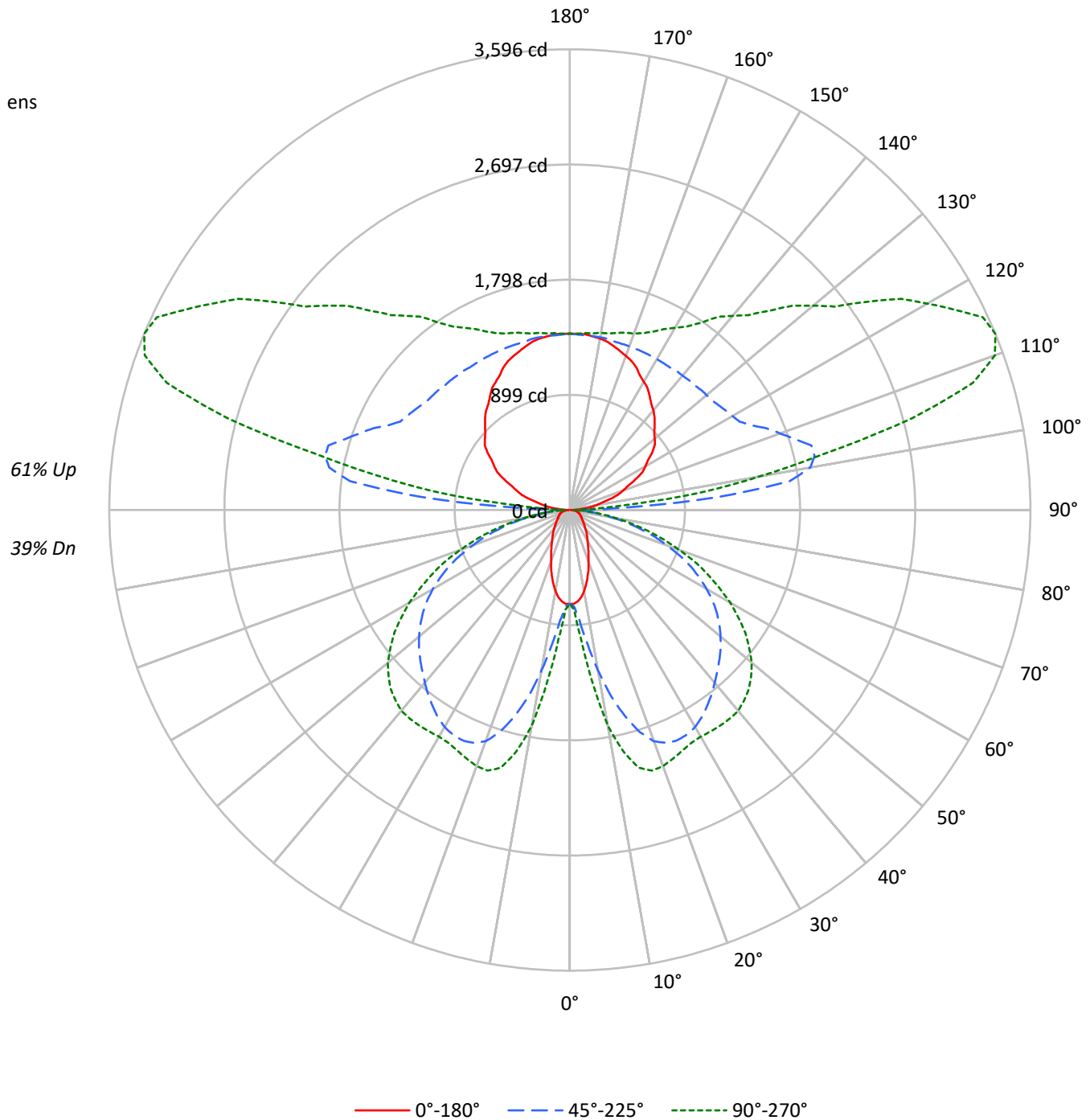
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14608.6 lumens
Efficiency: N/A
Efficacy: 113.4 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): 128.8
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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CATALOG NUMBER: SQ4-FB-125U-100D-92765-1D-UNV-STD-W-8-3500K

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			39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32			32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26			26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21			21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18			18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10			10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8			8

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	2.9
20°-30°	735.7	5.0
30°-40°	947.0	6.5
40°-50°	1057.8	7.2
50°-60°	1013.1	6.9
60°-70°	802.9	5.5
70°-80°	472.1	3.2
80°-90°	136.4	0.9
90°-100°	671.3	4.6
100°-110°	1765.0	12.1
110°-120°	1830.1	12.5
120°-130°	1468.0	10.0
130°-140°	1151.8	7.9
140°-150°	884.1	6.1
150°-160°	636.7	4.4
160°-170°	389.6	2.7
170°-180°	131.6	0.9
0°-30°	1251.2	8.6
0°-40°	2198.2	15.0
0°-60°	4269.1	29.2
0°-90°	5680.5	38.9
90°-120°	4266.4	29.2
90°-150°	7770.2	53.2
90°-180°	8928.0	61.1
0°-180°	14608.6	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°	9	26	70	35	35	9
95°	89	348	1156	596	406	99
105°	318	482	1951	2962	2764	337
115°	565	686	1563	3118	3559	558
125°	786	881	1422	2402	2834	698
135°	936	1031	1377	1939	2199	724
145°	1086	1155	1360	1655	1784	680
155°	1228	1262	1360	1493	1536	564
165°	1325	1342	1360	1413	1431	374
175°	1377	1377	1369	1386	1386	131
180°	1377	1377	1377	1377	1377	



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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°	9.3	16.7	24.0	25.9	40.7	60.4	70.2	62.4	46.8	35.1	35.1
92.5°	37.0	99.8	162.7	178.4	250.8	347.3	395.6	346.7	249.0	175.6	168.6
95°	88.7	203.8	318.8	347.6	617.2	976.6	1156.3	1031.9	782.9	596.2	575.0
97.5°	153.4	254.9	356.4	381.8	831.3	1430.7	1730.3	1651.7	1494.3	1376.3	1336.1
100°	203.3	295.4	387.4	410.4	909.2	1574.3	1906.9	1912.6	1924.1	1932.8	1884.9
102.5°	245.8	331.7	417.6	439.1	945.0	1619.6	1956.8	2057.0	2257.5	2407.8	2366.8
105°	318.0	390.7	463.4	481.6	971.4	1624.7	1951.3	2175.9	2625.4	2962.4	2940.4
107.5°	391.9	459.7	527.4	544.4	976.3	1552.4	1840.3	2153.8	2780.7	3250.8	3256.2
110°	441.8	503.1	564.3	579.6	969.0	1488.3	1747.9	2098.4	2799.2	3324.7	3347.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	490.9	549.1	607.5	622.1	969.3	1432.3	1663.8	2022.4	2739.6	3277.6	3313.0
115°	564.8	618.6	672.3	685.8	978.2	1368.1	1563.1	1908.5	2599.5	3117.7	3166.7
117.5°	637.8	686.7	735.5	747.7	996.4	1328.0	1493.7	1805.5	2429.1	2896.8	2951.2
120°	680.3	726.3	772.3	783.8	1011.2	1314.4	1465.9	1750.9	2320.6	2748.0	2800.8
122.5°	721.9	768.3	814.7	826.3	1032.4	1307.2	1444.7	1701.2	2214.4	2599.2	2651.3
125°	785.7	828.0	870.3	880.8	1061.1	1301.4	1421.6	1639.6	2075.4	2402.3	2450.2
127.5°	837.5	880.2	922.9	933.6	1089.8	1298.0	1402.2	1589.3	1963.6	2244.2	2284.7
130°	865.1	911.2	957.2	968.7	1110.7	1300.1	1394.8	1561.4	1894.6	2144.4	2181.8
132.5°	893.8	939.8	985.8	997.3	1127.6	1301.4	1388.3	1537.4	1835.7	2059.4	2092.8
135°	936.4	978.2	1020.2	1030.6	1146.1	1300.2	1377.2	1502.1	1751.9	1939.2	1968.0
137.5°	979.7	1021.2	1062.8	1073.1	1173.9	1308.2	1375.3	1480.9	1692.1	1850.5	1874.1
140°	1015.8	1054.0	1092.2	1101.8	1190.8	1309.6	1368.9	1460.1	1642.5	1779.3	1801.4
142.5°	1043.6	1078.9	1114.2	1123.0	1204.9	1314.3	1368.9	1449.0	1609.2	1729.4	1748.4
145°	1086.1	1116.8	1147.7	1155.4	1223.5	1314.3	1359.6	1425.2	1556.3	1654.6	1668.9
147.5°	1128.6	1158.6	1188.6	1196.1	1250.6	1323.3	1359.6	1411.2	1514.3	1591.7	1603.6
150°	1156.3	1183.4	1210.6	1217.4	1264.8	1328.0	1359.6	1403.2	1490.3	1555.7	1565.3
152.5°	1185.0	1205.5	1226.0	1231.2	1274.0	1331.1	1359.6	1396.9	1471.2	1527.0	1534.3
155°	1227.5	1242.7	1257.9	1261.7	1294.4	1337.9	1359.6	1389.3	1448.5	1492.8	1497.6
157.5°	1259.0	1273.7	1288.5	1292.2	1314.7	1344.6	1359.6	1382.7	1428.6	1463.2	1466.6
160°	1280.2	1291.7	1303.2	1306.1	1323.9	1347.8	1359.6	1379.4	1418.8	1448.4	1450.3
162.5°	1301.4	1310.0	1318.7	1320.8	1333.8	1351.0	1359.6	1376.2	1409.5	1434.5	1436.4
165°	1324.6	1332.4	1340.2	1342.1	1347.9	1355.7	1359.6	1371.6	1395.4	1413.3	1415.2
167.5°	1345.8	1349.5	1353.2	1354.1	1359.0	1365.6	1368.9	1376.7	1392.3	1404.0	1404.8
170°	1359.6	1363.4	1367.1	1368.0	1368.3	1368.7	1368.9	1376.7	1392.3	1404.0	1404.0
172.5°	1367.0	1367.9	1368.7	1368.9	1368.9	1368.9	1368.9	1375.1	1387.4	1396.7	1396.0
175°	1377.2	1377.2	1377.2	1377.2	1374.5	1370.8	1368.9	1372.8	1380.6	1386.5	1386.5
177.5°	1377.2	1377.2	1377.2	1377.2	1375.1	1372.2	1370.8	1373.8	1380.0	1384.6	1383.8
180°	1377.2	1377.2	1377.2	1377.2	1377.2	1377.2	1377.2	1377.2	1377.2	1377.2	1377.2



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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°	35.1	35.1
92.5°	140.7	112.7
95°	490.4	405.8
97.5°	1175.0	1014.0
100°	1692.9	1501.1
102.5°	2202.5	2038.1
105°	2852.0	2763.7
107.5°	3277.5	3298.9
110°	3439.8	3531.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3454.3	3595.6
115°	3362.7	3558.6
117.5°	3168.4	3385.8
120°	3012.0	3223.1
122.5°	2859.6	3067.8
125°	2642.2	2834.0
127.5°	2446.6	2608.4
130°	2331.3	2480.9
132.5°	2226.8	2360.7
135°	2083.6	2199.0
137.5°	1968.6	2063.1
140°	1889.8	1978.0
142.5°	1824.3	1900.4
145°	1726.4	1783.9
147.5°	1651.3	1698.9
150°	1603.9	1642.5
152.5°	1563.4	1592.6
155°	1516.9	1536.2
157.5°	1480.1	1493.7
160°	1458.1	1465.9
162.5°	1443.8	1451.2
165°	1423.0	1430.9
167.5°	1408.1	1411.4
170°	1404.0	1404.0
172.5°	1393.0	1390.2
175°	1386.5	1386.5
177.5°	1380.5	1377.2
180°	1377.2	1377.2



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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	4.15	4.95	5.19	6.00	7.42	17.33	18.13	18.37	19.18	20.60
	3H	4.85	5.57	5.90	6.63	8.06	19.16	19.88	20.21	20.94	22.38
	4H	5.15	5.83	6.21	6.89	8.33	19.81	20.49	20.87	21.55	22.99
	6H	5.39	6.02	6.47	7.09	8.54	20.23	20.86	21.30	21.92	23.38
	8H	5.46	6.06	6.54	7.14	8.59	20.35	20.95	21.43	22.03	23.48
	12H	5.48	6.04	6.56	7.12	8.59	20.42	20.98	21.50	22.06	23.54
4H	2H	11.36	12.04	12.43	13.10	14.54	17.60	18.27	18.66	19.34	20.78
	3H	12.92	13.49	14.00	14.58	16.03	19.64	20.20	20.71	21.29	22.75
	4H	13.01	13.53	14.09	14.61	16.09	20.40	20.92	21.48	22.00	23.48
	6H	13.02	13.47	14.11	14.57	16.04	20.93	21.38	22.03	22.49	23.96
	8H	12.99	13.41	14.08	14.51	16.00	21.10	21.51	22.19	22.61	24.10
	12H	12.95	13.33	14.06	14.43	15.93	21.19	21.57	22.29	22.67	24.17
8H	4H	14.45	14.87	15.54	15.96	17.45	20.45	20.87	21.55	21.97	23.46
	6H	14.69	15.04	15.80	16.17	17.66	21.08	21.43	22.19	22.56	24.05
	8H	14.71	15.01	15.83	16.13	17.64	21.30	21.60	22.42	22.72	24.23
	12H	14.67	14.94	15.80	16.05	17.60	21.44	21.71	22.57	22.82	24.37
12H	4H	14.59	14.97	15.70	16.08	17.57	20.40	20.78	21.51	21.89	23.39
	6H	14.95	15.25	16.07	16.37	17.88	21.06	21.37	22.18	22.49	23.99
	8H	15.01	15.28	16.14	16.40	17.94	21.29	21.56	22.41	22.67	24.21