

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: P938068

Luminaire Tested: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

**Test Information**

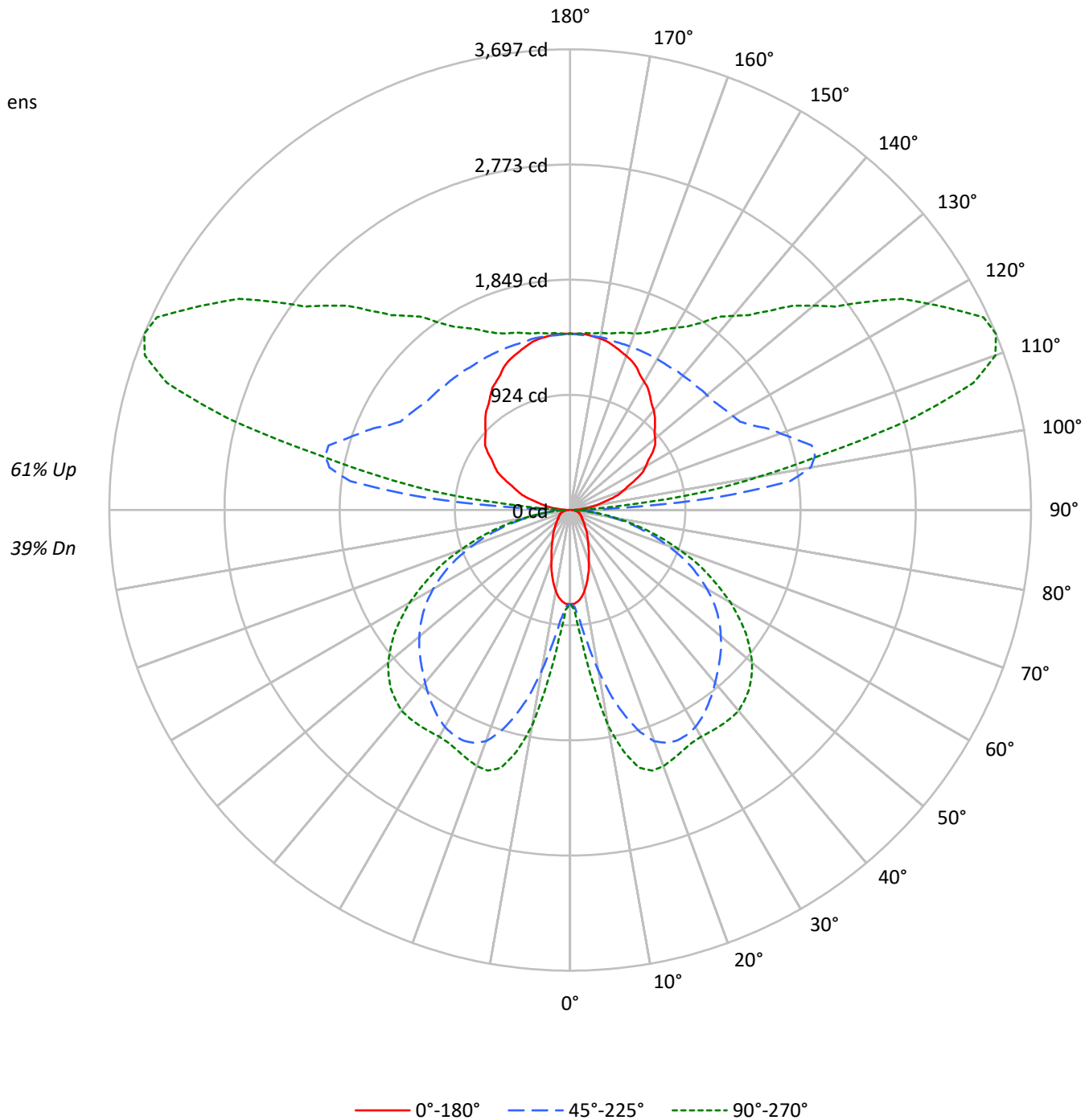
Test Method: LM-79-2019  
Report Number: P938068  
REPORT IS A COMBINATION OF REPORTS P933615 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-8-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15019.0 lumens  
Efficiency: N/A  
Efficacy: 116.6 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<sub>in</sub>): 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: P938068  
CATALOG NUMBER: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-8-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P938068

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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°	3500	3500	3500
5°	3418	4044	4704
10°	3101	5896	7798
15°	2635	7702	9416
20°	2145	8926	9596
25°	1790	9341	9401
30°	1510	9400	9383
35°	1335	9243	9626
40°	1163	9040	9877
45°	1053	8892	9916
50°	966	8758	9751
55°	925	8562	9319
60°	947	8186	8637
65°	985	7615	7699
70°	1049	6641	6504
75°	1163	5415	5075
80°	1270	3755	3421
85°	1127	1992	1751

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9916 cd/sqm



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CATALOG NUMBER: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-8-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.6	0.6
10°-20°	432.4	2.9
20°-30°	756.3	5.0
30°-40°	973.6	6.5
40°-50°	1087.5	7.2
50°-60°	1041.6	6.9
60°-70°	825.5	5.5
70°-80°	485.4	3.2
80°-90°	140.2	0.9
90°-100°	690.2	4.6
100°-110°	1814.6	12.1
110°-120°	1881.5	12.5
120°-130°	1509.2	10.0
130°-140°	1184.2	7.9
140°-150°	908.9	6.1
150°-160°	654.6	4.4
160°-170°	400.5	2.7
170°-180°	135.3	0.9
0°-30°	1286.3	8.6
0°-40°	2259.9	15.0
0°-60°	4389.0	29.2
0°-90°	5840.1	38.9
90°-120°	4386.3	29.2
90°-150°	7988.5	53.2
90°-180°	9179.0	61.1
0°-180°	15019.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	735	788	888	1004	1040	68
15°	550	1016	1712	2076	2141	153
25°	352	1152	2040	2129	2132	162
35°	238	1101	1921	2030	2110	148
45°	162	878	1698	1945	2032	126
55°	116	558	1440	1673	1720	106
65°	92	296	1070	1203	1220	91
75°	68	182	587	645	648	71
85°	24	56	146	160	162	26
90°	10	27	72	36	36	9
95°	91	357	1189	613	417	101
105°	327	495	2006	3046	2841	347
115°	581	705	1607	3205	3659	573
125°	808	906	1462	2470	2914	717
135°	963	1060	1416	1994	2261	745
145°	1117	1188	1398	1701	1834	700
155°	1262	1297	1398	1535	1579	580
165°	1362	1380	1398	1453	1471	384
175°	1416	1416	1407	1426	1426	134
180°	1416	1416	1416	1416	1416	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3	754.3
2.5°	754.3	754.3	759.1	761.5	766.4	768.8	773.6	778.5	793.1	795.5	800.3
5°	734.8	744.5	776.1	788.2	822.2	868.2	887.6	919.2	984.6	1004.1	1016.2
7.5°	705.7	727.5	805.2	824.5	909.4	1030.7	1081.6	1149.5	1253.8	1304.8	1346.0
10°	659.6	705.7	844.0	890.1	1028.3	1212.6	1307.2	1401.8	1559.3	1629.7	1656.3
12.5°	608.7	683.9	885.2	948.3	1147.1	1416.3	1530.3	1634.6	1814.0	1908.6	1923.1
15°	550.5	652.4	924.0	1016.2	1273.2	1586.1	1712.1	1840.7	2008.0	2075.9	2092.9
17.5°	499.6	628.2	960.4	1057.4	1370.2	1738.8	1867.4	1974.1	2109.9	2155.9	2168.1
20°	436.5	589.3	984.6	1110.7	1472.1	1850.4	1974.1	2056.6	2148.7	2177.8	2182.6
22.5°	390.5	548.0	999.2	1130.1	1540.0	1918.3	2022.6	2088.0	2151.2	2160.8	2163.3
25°	351.7	502.0	996.7	1152.0	1598.2	1959.6	2039.6	2088.0	2124.5	2129.3	2129.3
27.5°	315.2	451.0	987.1	1156.8	1641.8	1969.3	2032.3	2066.3	2083.3	2092.9	2092.9
30°	283.8	402.6	962.8	1147.1	1661.2	1959.6	2010.5	2027.5	2044.4	2058.9	2066.3
32.5°	259.5	356.5	926.4	1127.7	1663.7	1935.3	1971.7	1981.4	2005.6	2039.6	2051.7
35°	237.7	310.5	885.2	1101.1	1649.1	1896.5	1920.7	1930.5	1978.9	2029.8	2046.8
37.5°	215.8	276.5	831.8	1055.0	1627.3	1850.4	1867.4	1884.4	1959.6	2020.1	2039.6
40°	194.0	247.4	768.8	1004.1	1593.3	1794.6	1809.1	1835.8	1935.3	2005.6	2025.0
42.5°	177.0	223.1	700.8	950.6	1549.7	1731.6	1753.4	1792.2	1906.1	1981.4	2003.2
45°	162.5	198.9	628.2	877.9	1493.9	1666.1	1697.6	1751.0	1872.2	1945.0	1964.4
47.5°	147.9	181.9	552.9	802.7	1433.3	1600.6	1641.8	1702.5	1826.1	1896.5	1913.5
50°	135.8	164.9	477.8	722.7	1367.8	1530.3	1578.8	1641.8	1767.9	1833.5	1855.2
52.5°	126.1	150.3	407.5	642.7	1292.6	1457.5	1513.3	1578.8	1697.6	1760.7	1775.2
55°	116.4	138.2	346.8	557.8	1215.0	1379.9	1440.5	1503.6	1620.0	1673.3	1683.1
57.5°	111.6	128.6	295.9	477.8	1132.5	1292.6	1360.5	1418.8	1527.9	1569.1	1578.8
60°	104.3	121.2	257.0	409.8	1042.9	1210.2	1268.3	1326.5	1418.8	1452.7	1460.0
62.5°	97.0	116.4	228.0	344.4	950.6	1113.2	1171.3	1224.8	1302.3	1326.5	1336.3
65°	92.1	111.6	206.1	295.9	856.1	1011.3	1069.5	1115.6	1178.6	1202.9	1207.8
67.5°	87.3	106.7	189.1	254.7	761.5	909.4	953.1	996.7	1045.3	1069.5	1072.0
70°	80.0	101.9	174.6	225.6	664.5	793.1	829.4	875.5	914.3	926.4	933.7
72.5°	75.2	94.6	164.9	203.7	565.0	681.5	715.4	742.1	776.1	788.2	788.2
75°	67.9	84.9	155.2	181.9	463.3	557.8	586.9	613.6	640.3	645.1	637.8
77.5°	60.7	75.2	133.3	152.8	361.4	441.4	465.6	480.1	502.0	506.8	509.3
80°	50.9	65.5	104.3	118.8	261.9	325.0	341.9	354.0	373.5	373.5	378.4
82.5°	38.8	50.9	75.2	84.9	177.0	223.1	237.7	244.9	257.0	257.0	257.0
85°	24.2	31.6	48.5	55.8	106.7	135.8	145.5	147.9	157.7	160.0	160.0
87.5°	12.1	17.0	31.6	34.0	55.8	70.3	70.3	75.2	75.2	72.8	70.3
90°	9.5	17.2	24.7	26.6	41.8	62.1	72.2	64.1	48.1	36.1	36.1
92.5°	38.0	102.6	167.3	183.4	257.9	357.1	406.7	356.4	255.9	180.5	173.4
95°	91.2	209.5	327.8	357.4	634.5	1004.1	1188.8	1060.9	804.9	612.9	591.2
97.5°	157.8	262.1	366.4	392.5	854.6	1470.9	1779.0	1698.1	1536.3	1415.0	1373.6
100°	209.1	303.7	398.3	422.0	934.8	1618.5	1960.5	1966.3	1978.2	1987.1	1937.8
102.5°	252.7	341.0	429.3	451.4	971.6	1665.1	2011.8	2114.8	2320.9	2475.5	2433.3
105°	326.9	401.7	476.4	495.1	998.7	1670.3	2006.1	2237.1	2699.1	3045.6	3023.0
107.5°	403.0	472.6	542.3	559.7	1003.8	1596.0	1892.0	2214.3	2858.8	3342.2	3347.7
110°	454.3	517.2	580.2	595.9	996.2	1530.1	1797.0	2157.3	2877.8	3418.1	3441.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	504.6	564.6	624.6	639.5	996.5	1472.5	1710.5	2079.2	2816.6	3369.7	3406.0
115°	580.6	636.0	691.2	705.1	1005.7	1406.6	1607.0	1962.1	2672.5	3205.3	3255.7
117.5°	655.7	706.0	756.2	768.8	1024.4	1365.3	1535.7	1856.2	2497.3	2978.2	3034.1
120°	699.4	746.7	794.0	805.8	1039.6	1351.3	1507.1	1800.1	2385.8	2825.2	2879.5
122.5°	742.1	789.9	837.6	849.5	1061.4	1344.0	1485.3	1749.0	2276.6	2672.2	2725.7
125°	807.8	851.3	894.8	905.6	1090.9	1338.0	1461.5	1685.6	2133.7	2469.8	2519.1
127.5°	861.0	904.9	948.8	959.8	1120.4	1334.5	1441.6	1634.0	2018.7	2307.3	2348.8
130°	889.4	936.8	984.0	995.9	1141.9	1336.6	1434.0	1605.2	1947.8	2204.7	2243.1
132.5°	918.9	966.2	1013.5	1025.3	1159.3	1338.0	1427.3	1580.6	1887.2	2117.2	2151.6
135°	962.7	1005.7	1048.8	1059.6	1178.3	1336.7	1415.9	1544.3	1801.1	1993.7	2023.3
137.5°	1007.3	1049.9	1092.6	1103.3	1206.9	1345.0	1414.0	1522.5	1739.7	1902.5	1926.8
140°	1044.3	1083.6	1122.9	1132.7	1224.3	1346.4	1407.4	1501.2	1688.7	1829.3	1852.0
142.5°	1072.9	1109.2	1145.5	1154.6	1238.8	1351.2	1407.4	1489.7	1654.4	1777.9	1797.5
145°	1116.6	1148.2	1180.0	1187.9	1257.9	1351.2	1397.8	1465.2	1600.0	1701.0	1715.8
147.5°	1160.3	1191.2	1222.0	1229.7	1285.8	1360.5	1397.8	1450.9	1556.9	1636.4	1648.6
150°	1188.8	1216.7	1244.6	1251.6	1300.3	1365.3	1397.8	1442.6	1532.2	1599.4	1609.3
152.5°	1218.2	1239.3	1260.5	1265.8	1309.8	1368.5	1397.8	1436.1	1512.5	1569.9	1577.4
155°	1262.0	1277.6	1293.2	1297.2	1330.7	1375.4	1397.8	1428.3	1489.1	1534.8	1539.7
157.5°	1294.3	1309.5	1324.7	1328.5	1351.6	1382.4	1397.8	1421.5	1468.8	1504.3	1507.8
160°	1316.2	1328.0	1339.8	1342.8	1361.1	1385.6	1397.8	1418.1	1458.7	1489.1	1491.1
162.5°	1338.0	1346.8	1355.7	1357.9	1371.2	1388.9	1397.8	1414.9	1449.1	1474.8	1476.8
165°	1361.8	1369.8	1377.8	1379.8	1385.8	1393.8	1397.8	1410.1	1434.6	1453.0	1455.0
167.5°	1383.6	1387.4	1391.2	1392.1	1397.2	1404.0	1407.4	1415.4	1431.4	1443.4	1444.3
170°	1397.8	1401.7	1405.5	1406.5	1406.7	1407.2	1407.4	1415.4	1431.4	1443.4	1443.4
172.5°	1405.4	1406.3	1407.2	1407.4	1407.4	1407.4	1407.4	1413.7	1426.4	1435.9	1435.2
175°	1415.9	1415.9	1415.9	1415.9	1413.1	1409.3	1407.4	1411.4	1419.4	1425.5	1425.5
177.5°	1415.9	1415.9	1415.9	1415.9	1413.7	1410.8	1409.3	1412.4	1418.8	1423.5	1422.7
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	754.3	754.3
2.5°	805.2	800.3
5°	1035.5	1040.4
7.5°	1394.4	1392.1
10°	1734.0	1755.8
12.5°	1981.4	1986.3
15°	2131.7	2141.4
17.5°	2189.9	2192.4
20°	2192.4	2187.5
22.5°	2165.7	2160.8
25°	2134.2	2131.7
27.5°	2105.0	2107.5
30°	2092.9	2100.2
32.5°	2092.9	2105.0
35°	2097.8	2109.9
37.5°	2095.4	2109.9
40°	2085.6	2102.6
42.5°	2058.9	2071.1
45°	2017.7	2032.3
47.5°	1964.4	1974.1
50°	1896.5	1906.1
52.5°	1811.6	1814.0
55°	1709.8	1719.5
57.5°	1600.6	1603.0
60°	1479.3	1486.7
62.5°	1350.8	1350.8
65°	1215.0	1219.9
67.5°	1074.3	1086.5
70°	931.3	933.7
72.5°	790.6	790.6
75°	645.1	647.5
77.5°	506.8	506.8
80°	375.9	378.4
82.5°	259.5	264.4
85°	162.5	162.5
87.5°	75.2	67.9
90°	36.1	36.1
92.5°	144.6	115.9
95°	504.2	417.2
97.5°	1208.1	1042.5
100°	1740.5	1543.3
102.5°	2264.3	2095.4
105°	2932.1	2841.4
107.5°	3369.6	3391.5
110°	3536.4	3631.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3551.3	3696.6
115°	3457.1	3658.6
117.5°	3257.5	3480.9
120°	3096.6	3313.6
122.5°	2939.9	3154.0
125°	2716.4	2913.6
127.5°	2515.3	2681.7
130°	2396.8	2550.5
132.5°	2289.4	2427.0
135°	2142.1	2260.7
137.5°	2023.9	2121.1
140°	1942.9	2033.6
142.5°	1875.6	1953.8
145°	1774.9	1834.0
147.5°	1697.6	1746.6
150°	1649.0	1688.7
152.5°	1607.3	1637.4
155°	1559.5	1579.4
157.5°	1521.7	1535.7
160°	1499.1	1507.1
162.5°	1484.4	1492.0
165°	1463.0	1471.1
167.5°	1447.7	1451.1
170°	1443.4	1443.4
172.5°	1432.2	1429.2
175°	1425.5	1425.5
177.5°	1419.3	1415.9
180°	1415.9	1415.9



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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	4.25	5.04	5.29	6.10	7.51	17.43	18.22	18.47	19.27	20.69
	3H	4.95	5.66	6.00	6.72	8.16	19.26	19.98	20.31	21.03	22.47
	4H	5.24	5.92	6.30	6.98	8.43	19.90	20.58	20.96	21.64	23.09
	6H	5.49	6.12	6.56	7.18	8.64	20.33	20.96	21.40	22.02	23.48
	8H	5.56	6.15	6.63	7.23	8.69	20.45	21.04	21.52	22.13	23.58
	12H	5.57	6.14	6.65	7.21	8.69	20.51	21.08	21.60	22.16	23.63
4H	2H	11.45	12.13	12.52	13.20	14.64	17.69	18.37	18.76	19.43	20.88
	3H	13.02	13.58	14.09	14.67	16.13	19.73	20.30	20.81	21.39	22.85
	4H	13.11	13.63	14.19	14.71	16.19	20.50	21.02	21.58	22.10	23.58
	6H	13.11	13.56	14.21	14.67	16.14	21.03	21.48	22.12	22.58	24.05
	8H	13.09	13.51	14.18	14.60	16.09	21.19	21.61	22.28	22.71	24.19
	12H	13.04	13.42	14.15	14.53	16.03	21.28	21.66	22.39	22.77	24.26
8H	4H	14.55	14.97	15.64	16.06	17.55	20.55	20.97	21.64	22.06	23.55
	6H	14.79	15.13	15.90	16.27	17.76	21.18	21.52	22.29	22.66	24.15
	8H	14.80	15.11	15.92	16.23	17.73	21.40	21.70	22.52	22.82	24.32
	12H	14.77	15.04	15.89	16.15	17.69	21.54	21.80	22.66	22.92	24.46
12H	4H	14.69	15.07	15.80	16.18	17.67	20.50	20.88	21.61	21.99	23.48
	6H	15.04	15.35	16.16	16.47	17.97	21.16	21.46	22.28	22.58	24.09
	8H	15.11	15.38	16.23	16.49	18.04	21.39	21.65	22.51	22.77	24.31