

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: P938472

Luminaire Tested: SQ4-FB-150U-100D-935-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

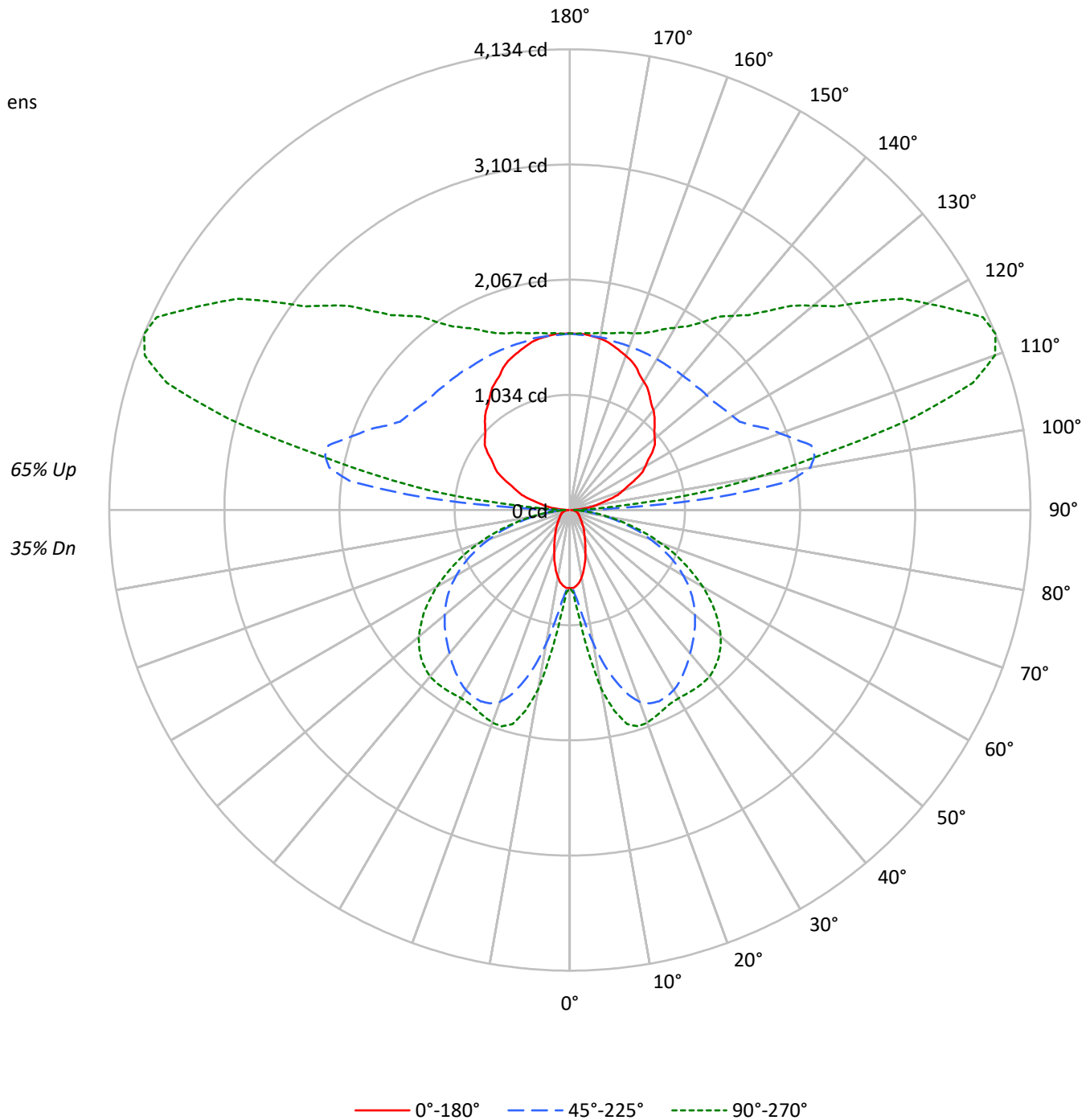
Test Method: LM-79-2019  
Report Number: P938472  
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-935-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15688.7 lumens  
Efficiency: N/A  
Efficacy: 108.3 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 (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				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	35				35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28				28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23				23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8				8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7				7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3249	3249	3249
5°	3174	3755	4367
10°	2879	5474	7240
15°	2447	7151	8742
20°	1992	8287	8909
25°	1662	8672	8728
30°	1401	8727	8712
35°	1239	8582	8937
40°	1079	8393	9170
45°	978	8256	9206
50°	897	8132	9053
55°	858	7950	8652
60°	879	7600	8018
65°	914	7070	7148
70°	974	6165	6038
75°	1079	5027	4713
80°	1180	3487	3176
85°	1048	1850	1626

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9206 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.6	0.6
10°-20°	401.4	2.6
20°-30°	702.2	4.5
30°-40°	903.9	5.8
40°-50°	1009.7	6.4
50°-60°	967.0	6.2
60°-70°	766.4	4.9
70°-80°	450.6	2.9
80°-90°	131.2	0.8
90°-100°	771.9	4.9
100°-110°	2029.4	12.9
110°-120°	2104.3	13.4
120°-130°	1687.9	10.8
130°-140°	1324.4	8.4
140°-150°	1016.5	6.5
150°-160°	732.1	4.7
160°-170°	447.9	2.9
170°-180°	151.3	1.0
0°-30°	1194.2	7.6
0°-40°	2098.1	13.4
0°-60°	4074.8	26.0
0°-90°	5423.1	34.6
90°-120°	4905.6	31.3
90°-150°	8934.4	56.9
90°-180°	10266.0	65.4
0°-180°	15688.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	682	732	824	932	966	63
15°	511	943	1590	1927	1988	142
25°	326	1070	1894	1977	1979	150
35°	221	1022	1783	1884	1959	138
45°	151	815	1576	1806	1887	117
55°	108	518	1337	1554	1596	98
65°	86	275	993	1117	1133	85
75°	63	169	545	599	601	66
85°	22	52	135	149	151	24
90°	11	30	81	40	40	10
95°	102	400	1330	686	467	113
105°	366	554	2244	3406	3178	388
115°	649	789	1797	3585	4092	641
125°	903	1013	1635	2762	3259	802
135°	1077	1185	1584	2230	2528	833
145°	1249	1328	1563	1902	2051	782
155°	1411	1451	1563	1716	1766	648
165°	1523	1543	1563	1625	1645	430
175°	1584	1584	1574	1594	1594	150
180°	1584	1584	1584	1584	1584	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3	700.3
2.5°	700.3	700.3	704.8	707.0	711.5	713.7	718.2	722.8	736.3	738.5	743.0
5°	682.2	691.2	720.5	731.8	763.3	806.1	824.1	853.4	914.1	932.2	943.4
7.5°	655.2	675.5	747.5	765.5	844.3	956.9	1004.2	1067.2	1164.1	1211.4	1249.6
10°	612.4	655.2	783.6	826.4	954.7	1125.7	1213.6	1301.4	1447.7	1513.1	1537.8
12.5°	565.1	634.9	821.8	880.4	1065.0	1314.9	1420.7	1517.6	1684.1	1772.0	1785.5
15°	511.1	605.7	857.9	943.4	1182.1	1472.5	1589.6	1708.9	1864.3	1927.3	1943.1
17.5°	463.8	583.2	891.6	981.7	1272.1	1614.4	1733.7	1832.7	1958.8	2001.6	2012.9
20°	405.3	547.2	914.1	1031.2	1366.7	1718.0	1832.7	1909.3	1994.9	2021.9	2026.4
22.5°	362.5	508.8	927.7	1049.2	1429.7	1781.0	1877.8	1938.6	1997.2	2006.1	2008.4
25°	326.5	466.0	925.4	1069.5	1483.8	1819.3	1893.6	1938.6	1972.4	1976.9	1976.9
27.5°	292.7	418.8	916.4	1074.0	1524.3	1828.3	1886.8	1918.4	1934.1	1943.1	1943.1
30°	263.4	373.8	893.8	1065.0	1542.3	1819.3	1866.6	1882.3	1898.1	1911.5	1918.4
32.5°	240.9	331.0	860.1	1046.9	1544.6	1796.8	1830.5	1839.6	1862.0	1893.6	1904.8
35°	220.7	288.2	821.8	1022.2	1531.0	1760.7	1783.2	1792.3	1837.3	1884.5	1900.3
37.5°	200.4	256.7	772.3	979.5	1510.8	1718.0	1733.7	1749.5	1819.3	1875.5	1893.6
40°	180.1	229.7	713.7	932.2	1479.2	1666.2	1679.6	1704.4	1796.8	1862.0	1880.0
42.5°	164.4	207.1	650.7	882.6	1438.8	1607.6	1627.9	1663.9	1769.7	1839.6	1859.8
45°	150.9	184.6	583.2	815.0	1387.0	1546.8	1576.1	1625.6	1738.2	1805.7	1823.8
47.5°	137.3	168.9	513.3	745.2	1330.7	1486.1	1524.3	1580.6	1695.4	1760.7	1776.5
50°	126.1	153.1	443.6	670.9	1269.9	1420.7	1465.8	1524.3	1641.4	1702.2	1722.4
52.5°	117.1	139.6	378.3	596.7	1200.0	1353.1	1404.9	1465.8	1576.1	1634.6	1648.1
55°	108.0	128.3	322.0	517.8	1128.0	1281.2	1337.4	1396.0	1504.0	1553.5	1562.6
57.5°	103.6	119.4	274.7	443.6	1051.5	1200.0	1263.1	1317.2	1418.5	1456.7	1465.8
60°	96.8	112.5	238.6	380.5	968.2	1123.5	1177.5	1231.6	1317.2	1348.7	1355.4
62.5°	90.1	108.0	211.6	319.8	882.6	1033.5	1087.5	1137.1	1209.1	1231.6	1240.6
65°	85.5	103.6	191.4	274.7	794.8	938.9	992.9	1035.7	1094.2	1116.8	1121.3
67.5°	81.0	99.1	175.6	236.4	707.0	844.3	884.9	925.4	970.4	992.9	995.2
70°	74.3	94.6	162.1	209.4	616.9	736.3	770.0	812.8	848.8	860.1	866.8
72.5°	69.8	87.8	153.1	189.1	524.6	632.7	664.2	689.0	720.5	731.8	731.8
75°	63.0	78.8	144.1	168.9	430.1	517.8	544.9	569.6	594.4	599.0	592.1
77.5°	56.3	69.8	123.8	141.9	335.5	409.8	432.3	445.8	466.0	470.6	472.9
80°	47.3	60.8	96.8	110.3	243.2	301.7	317.5	328.7	346.8	346.8	351.3
82.5°	36.0	47.3	69.8	78.8	164.4	207.1	220.7	227.4	238.6	238.6	238.6
85°	22.5	29.3	45.1	51.8	99.1	126.1	135.1	137.3	146.4	148.6	148.6
87.5°	11.2	15.8	29.3	31.5	51.8	65.3	65.3	69.8	69.8	67.6	65.3
90°	10.6	19.2	27.6	29.7	46.8	69.4	80.8	71.8	53.8	40.4	40.4
92.5°	42.5	114.8	187.1	205.2	288.4	399.4	454.9	398.7	286.3	201.9	193.9
95°	102.1	234.3	366.5	399.6	709.5	1122.9	1329.5	1186.4	900.2	685.5	661.2
97.5°	176.4	293.1	409.8	439.0	955.9	1645.0	1989.6	1899.1	1718.2	1582.5	1536.2
100°	233.8	339.6	445.4	471.9	1045.5	1810.2	2192.5	2199.2	2212.4	2222.3	2167.1
102.5°	282.7	381.4	480.1	504.8	1086.6	1862.1	2250.0	2365.2	2595.7	2768.6	2721.4
105°	365.6	449.2	532.8	553.7	1117.0	1868.0	2243.6	2502.0	3018.7	3406.3	3380.9
107.5°	450.6	528.6	606.5	626.0	1122.7	1784.9	2116.0	2476.4	3197.3	3737.9	3744.0
110°	508.0	578.4	648.8	666.3	1114.2	1711.2	2009.8	2412.7	3218.5	3822.9	3849.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	564.4	631.4	698.5	715.3	1114.5	1646.8	1913.0	2325.4	3150.1	3768.7	3809.3
115°	649.4	711.2	773.1	788.6	1124.8	1573.0	1797.2	2194.4	2988.9	3584.8	3641.1
117.5°	733.3	789.5	845.8	859.8	1145.7	1526.9	1717.5	2076.0	2793.0	3330.8	3393.3
120°	782.2	835.1	888.0	901.2	1162.7	1511.3	1685.6	2013.2	2668.4	3159.7	3220.4
122.5°	830.0	883.4	936.8	950.2	1187.2	1503.2	1661.1	1956.1	2546.1	2988.6	3048.5
125°	903.4	952.0	1000.7	1012.9	1220.1	1496.4	1634.6	1885.1	2386.3	2762.2	2817.3
127.5°	962.9	1012.0	1061.2	1073.4	1253.0	1492.5	1612.2	1827.4	2257.7	2580.5	2627.0
130°	994.8	1047.7	1100.6	1113.8	1277.1	1494.8	1603.7	1795.2	2178.4	2465.7	2508.7
132.5°	1027.8	1080.7	1133.6	1146.8	1296.7	1496.5	1596.3	1767.7	2110.7	2367.9	2406.4
135°	1076.6	1124.8	1173.0	1185.0	1317.9	1495.0	1583.5	1727.2	2014.4	2229.8	2262.9
137.5°	1126.6	1174.3	1221.9	1233.9	1349.7	1504.2	1581.5	1702.9	1945.6	2127.7	2154.9
140°	1168.0	1212.0	1255.8	1266.8	1369.2	1505.7	1574.0	1678.9	1888.6	2045.9	2071.3
142.5°	1199.9	1240.5	1281.2	1291.3	1385.5	1511.2	1574.0	1666.1	1850.3	1988.5	2010.3
145°	1248.8	1284.2	1319.7	1328.5	1406.8	1511.2	1563.3	1638.7	1789.4	1902.4	1919.0
147.5°	1297.7	1332.2	1366.7	1375.3	1438.0	1521.6	1563.3	1622.6	1741.1	1830.1	1843.8
150°	1329.5	1360.7	1391.9	1399.7	1454.2	1527.0	1563.3	1613.4	1713.5	1788.7	1799.8
152.5°	1362.5	1386.1	1409.8	1415.7	1464.9	1530.5	1563.3	1606.1	1691.6	1755.7	1764.1
155°	1411.4	1428.9	1446.4	1450.7	1488.3	1538.3	1563.3	1597.3	1665.4	1716.4	1722.0
157.5°	1447.5	1464.6	1481.5	1485.8	1511.6	1546.1	1563.3	1589.8	1642.7	1682.4	1686.4
160°	1472.0	1485.2	1498.4	1501.7	1522.3	1549.6	1563.3	1586.0	1631.4	1665.4	1667.6
162.5°	1496.5	1506.3	1516.3	1518.8	1533.6	1553.5	1563.3	1582.5	1620.8	1649.5	1651.6
165°	1523.0	1531.9	1540.9	1543.1	1549.9	1558.8	1563.3	1577.1	1604.5	1625.0	1627.2
167.5°	1547.4	1551.7	1555.9	1557.0	1562.7	1570.2	1574.0	1582.9	1600.9	1614.4	1615.3
170°	1563.3	1567.6	1571.9	1573.0	1573.3	1573.7	1574.0	1582.9	1600.9	1614.4	1614.4
172.5°	1571.9	1572.8	1573.7	1574.0	1574.0	1574.0	1574.0	1581.1	1595.2	1605.8	1605.0
175°	1583.5	1583.5	1583.5	1583.5	1580.4	1576.1	1574.0	1578.5	1587.4	1594.2	1594.2
177.5°	1583.5	1583.5	1583.5	1583.5	1581.1	1577.7	1576.1	1579.7	1586.8	1592.0	1591.1
180°	1583.5	1583.5	1583.5	1583.5	1583.5	1583.5	1583.5	1583.5	1583.5	1583.5	1583.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	700.3	700.3
2.5°	747.5	743.0
5°	961.4	965.9
7.5°	1294.6	1292.4
10°	1609.9	1630.1
12.5°	1839.6	1844.1
15°	1979.1	1988.1
17.5°	2033.1	2035.4
20°	2035.4	2030.9
22.5°	2010.6	2006.1
25°	1981.4	1979.1
27.5°	1954.3	1956.6
30°	1943.1	1949.9
32.5°	1943.1	1954.3
35°	1947.6	1958.8
37.5°	1945.4	1958.8
40°	1936.3	1952.1
42.5°	1911.5	1922.8
45°	1873.3	1886.8
47.5°	1823.8	1832.7
50°	1760.7	1769.7
52.5°	1681.9	1684.1
55°	1587.4	1596.4
57.5°	1486.1	1488.3
60°	1373.4	1380.2
62.5°	1254.1	1254.1
65°	1128.0	1132.6
67.5°	997.4	1008.7
70°	864.6	866.8
72.5°	734.0	734.0
75°	599.0	601.2
77.5°	470.6	470.6
80°	349.0	351.3
82.5°	240.9	245.5
85°	150.9	150.9
87.5°	69.8	63.0
90°	40.4	40.4
92.5°	161.8	129.7
95°	563.9	466.6
97.5°	1351.0	1165.9
100°	1946.6	1726.0
102.5°	2532.4	2343.5
105°	3279.3	3177.8
107.5°	3768.6	3793.1
110°	3955.2	4061.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3971.8	4134.2
115°	3866.5	4091.7
117.5°	3643.2	3893.0
120°	3463.2	3705.9
122.5°	3288.0	3527.5
125°	3038.0	3258.6
127.5°	2813.1	2999.2
130°	2680.6	2852.6
132.5°	2560.3	2714.4
135°	2395.7	2528.4
137.5°	2263.5	2372.1
140°	2172.9	2274.4
142.5°	2097.7	2185.1
145°	1985.1	2051.2
147.5°	1898.6	1953.4
150°	1844.2	1888.6
152.5°	1797.6	1831.2
155°	1744.2	1766.4
157.5°	1701.9	1717.5
160°	1676.7	1685.6
162.5°	1660.0	1668.6
165°	1636.3	1645.2
167.5°	1619.1	1622.9
170°	1614.4	1614.4
172.5°	1601.8	1598.4
175°	1594.2	1594.2
177.5°	1587.3	1583.5
180°	1583.5	1583.5



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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	3.49	4.25	4.56	5.33	6.81	16.67	17.43	17.74	18.51	19.98
	3H	4.19	4.87	5.27	5.96	7.45	18.50	19.19	19.58	20.27	21.76
	4H	4.48	5.13	5.58	6.22	7.72	19.14	19.79	20.24	20.88	22.38
	6H	4.73	5.33	5.83	6.42	7.93	19.57	20.17	20.67	21.26	22.77
	8H	4.79	5.36	5.90	6.47	7.97	19.69	20.26	20.79	21.36	22.87
	12H	4.81	5.35	5.92	6.45	7.98	19.75	20.29	20.86	21.39	22.92
4H	2H	10.69	11.34	11.79	12.43	13.93	16.93	17.58	18.03	18.67	20.17
	3H	12.25	12.80	13.36	13.91	15.42	18.97	19.51	20.08	20.63	22.14
	4H	12.34	12.84	13.45	13.95	15.48	19.73	20.23	20.84	21.33	22.86
	6H	12.35	12.78	13.47	13.90	15.43	20.26	20.69	21.38	21.82	23.34
	8H	12.32	12.72	13.44	13.84	15.38	20.42	20.82	21.54	21.94	23.48
	12H	12.27	12.64	13.41	13.77	15.31	20.51	20.88	21.65	22.01	23.55
8H	4H	13.78	14.18	14.90	15.30	16.84	19.78	20.18	20.90	21.30	22.84
	6H	14.02	14.35	15.16	15.51	17.05	20.41	20.74	21.55	21.90	23.44
	8H	14.03	14.32	15.18	15.46	17.02	20.63	20.92	21.77	22.06	23.61
	12H	14.00	14.25	15.15	15.39	16.98	20.77	21.02	21.92	22.16	23.75
12H	4H	13.92	14.28	15.05	15.41	16.96	19.73	20.09	20.87	21.23	22.77
	6H	14.27	14.56	15.42	15.71	17.26	20.39	20.68	21.54	21.82	23.38
	8H	14.34	14.59	15.49	15.73	17.32	20.61	20.87	21.77	22.01	23.60