

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: P938524

Luminaire Tested: SQ4-FB-150U-125D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

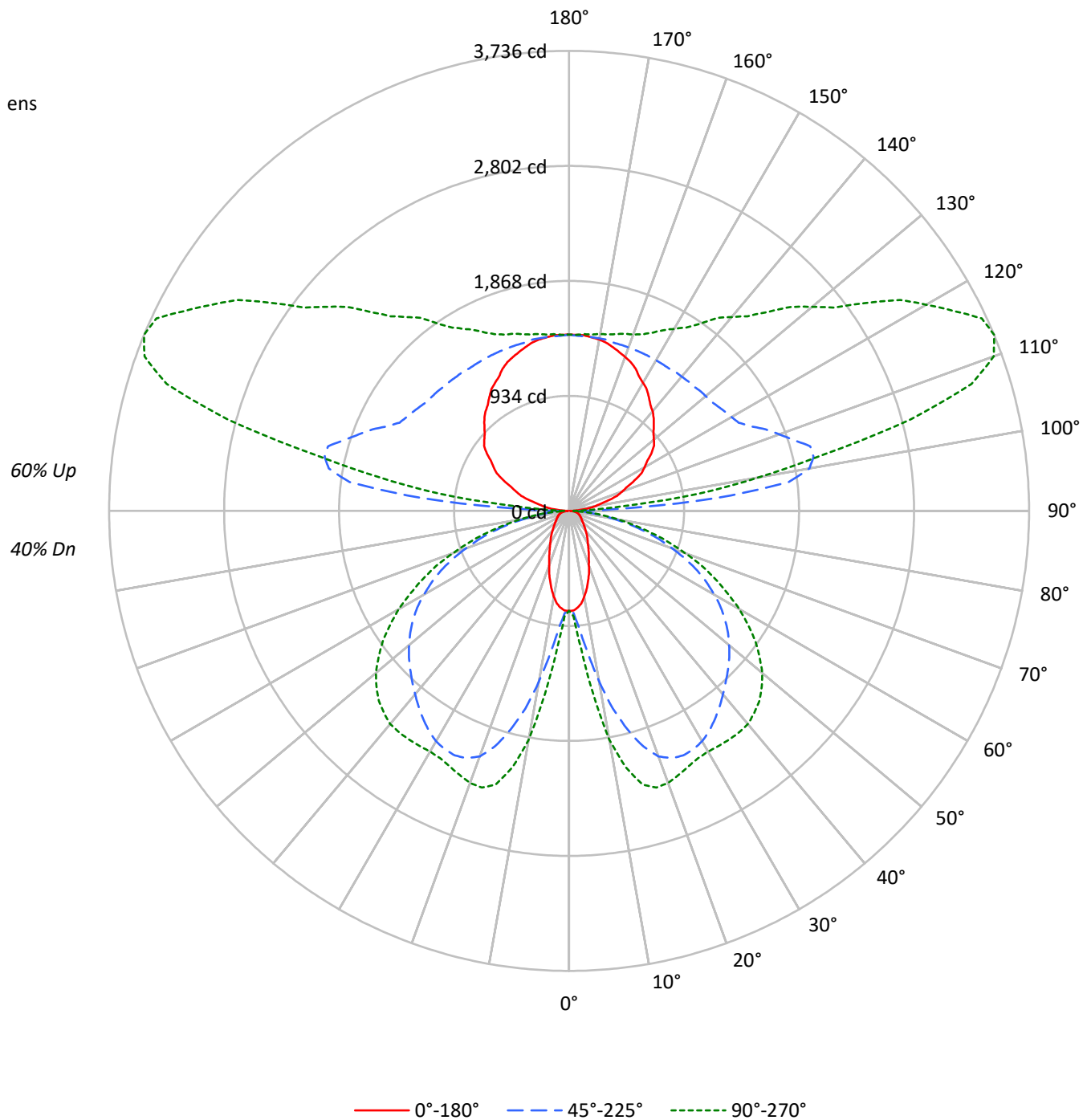
Test Method: LM-79-2019  
Report Number: P938524  
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-927-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15553.2 lumens  
Efficiency: N/A  
Efficacy: 93.5 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: General Diffuse  
  
Input Watts (W): 166.4  
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

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

	0°	45°	90°
0°	3760	3760	3760
5°	3673	4347	5054
10°	3332	6336	8380
15°	2832	8277	10118
20°	2306	9592	10312
25°	1923	10038	10103
30°	1622	10101	10084
35°	1434	9933	10344
40°	1250	9715	10614
45°	1131	9556	10656
50°	1038	9412	10479
55°	994	9202	10015
60°	1017	8798	9281
65°	1058	8183	8273
70°	1128	7137	6990
75°	1250	5819	5454
80°	1365	4035	3676
85°	1211	2141	1881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10656 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.8	0.7
10°-20°	464.7	3.0
20°-30°	812.8	5.2
30°-40°	1046.3	6.7
40°-50°	1168.7	7.5
50°-60°	1119.3	7.2
60°-70°	887.1	5.7
70°-80°	521.6	3.4
80°-90°	150.4	1.0
90°-100°	697.6	4.5
100°-110°	1834.1	11.8
110°-120°	1901.7	12.2
120°-130°	1525.4	9.8
130°-140°	1196.9	7.7
140°-150°	918.7	5.9
150°-160°	661.6	4.3
160°-170°	404.8	2.6
170°-180°	136.8	0.9
0°-30°	1382.3	8.9
0°-40°	2428.6	15.6
0°-60°	4716.5	30.3
0°-90°	6275.6	40.3
90°-120°	4433.5	28.5
90°-150°	8074.5	51.9
90°-180°	9278.0	59.7
0°-180°	15553.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	790	847	954	1079	1118	73
15°	592	1092	1840	2231	2301	165
25°	378	1238	2192	2288	2291	174
35°	255	1183	2064	2181	2267	159
45°	175	943	1824	2090	2184	135
55°	125	599	1548	1798	1848	114
65°	99	318	1149	1293	1311	98
75°	73	195	631	693	696	76
85°	26	60	156	172	175	28
90°	10	27	73	36	36	10
95°	92	361	1202	620	422	102
105°	330	500	2028	3078	2872	350
115°	587	713	1624	3240	3698	580
125°	816	915	1477	2496	2945	725
135°	973	1071	1431	2015	2285	753
145°	1129	1201	1413	1719	1854	707
155°	1276	1311	1413	1551	1596	586
165°	1376	1395	1413	1469	1487	388
175°	1431	1431	1422	1441	1441	136
180°	1431	1431	1431	1431	1431	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5
2.5°	810.5	810.5	815.7	818.4	823.5	826.1	831.4	836.6	852.2	854.9	860.0
5°	789.6	800.1	834.0	847.0	883.5	933.0	953.9	987.8	1058.1	1078.9	1091.9
7.5°	758.4	781.9	865.2	886.1	977.3	1107.6	1162.3	1235.3	1347.3	1402.1	1446.4
10°	708.9	758.4	906.9	956.4	1105.0	1303.1	1404.7	1506.4	1675.8	1751.4	1780.0
12.5°	654.1	735.0	951.3	1019.0	1232.7	1522.0	1644.5	1756.5	1949.4	2051.0	2066.7
15°	591.6	701.1	992.9	1091.9	1368.2	1704.4	1839.9	1978.1	2157.9	2230.8	2249.1
17.5°	536.8	675.0	1032.0	1136.3	1472.5	1868.6	2006.7	2121.4	2267.3	2316.9	2329.9
20°	469.1	633.3	1058.1	1193.6	1582.0	1988.5	2121.4	2210.0	2309.1	2340.3	2345.5
22.5°	419.6	589.0	1073.8	1214.4	1654.9	2061.4	2173.6	2243.9	2311.6	2322.1	2324.7
25°	377.9	539.5	1071.1	1237.9	1717.5	2105.8	2191.8	2243.9	2283.0	2288.2	2288.2
27.5°	338.8	484.7	1060.7	1243.2	1764.4	2116.2	2184.0	2220.4	2238.7	2249.1	2249.1
30°	304.9	432.6	1034.6	1232.7	1785.2	2105.8	2160.5	2178.7	2197.0	2212.6	2220.4
32.5°	278.9	383.1	995.5	1211.8	1787.8	2079.7	2118.8	2129.2	2155.3	2191.8	2204.8
35°	255.4	333.6	951.3	1183.2	1772.2	2038.0	2064.1	2074.5	2126.6	2181.3	2199.6
37.5°	231.9	297.1	893.9	1133.7	1748.7	1988.5	2006.7	2024.9	2105.8	2170.9	2191.8
40°	208.5	265.8	826.1	1078.9	1712.2	1928.5	1944.2	1972.8	2079.7	2155.3	2176.1
42.5°	190.3	239.8	753.2	1021.6	1665.4	1860.8	1884.3	1925.9	2048.4	2129.2	2152.7
45°	174.6	213.7	675.0	943.4	1605.4	1790.4	1824.3	1881.6	2011.9	2090.2	2111.0
47.5°	159.0	195.4	594.2	862.6	1540.2	1720.0	1764.4	1829.5	1962.4	2038.0	2056.3
50°	145.9	177.3	513.4	776.6	1469.9	1644.5	1696.6	1764.4	1899.9	1970.3	1993.7
52.5°	135.5	161.5	437.8	690.6	1389.1	1566.3	1626.2	1696.6	1824.3	1892.0	1907.7
55°	125.1	148.5	372.7	599.4	1305.7	1482.9	1548.1	1615.8	1740.9	1798.3	1808.7
57.5°	119.9	138.1	317.9	513.4	1217.1	1389.1	1462.1	1524.6	1641.9	1686.1	1696.6
60°	112.0	130.3	276.3	440.4	1120.7	1300.5	1363.0	1425.6	1524.6	1561.1	1568.9
62.5°	104.3	125.1	245.0	370.1	1021.6	1196.2	1258.8	1316.1	1399.5	1425.6	1436.0
65°	99.0	119.9	221.5	317.9	920.0	1086.8	1149.3	1198.8	1266.6	1292.7	1297.8
67.5°	93.8	114.7	203.3	273.7	818.4	977.3	1024.2	1071.1	1123.3	1149.3	1151.9
70°	86.0	109.5	187.6	242.4	714.1	852.2	891.3	940.8	982.5	995.5	1003.4
72.5°	80.8	101.6	177.3	218.9	607.2	732.3	768.8	797.5	834.0	847.0	847.0
75°	73.0	91.2	166.8	195.4	497.8	599.4	630.7	659.4	688.0	693.2	685.5
77.5°	65.1	80.8	143.4	164.2	388.3	474.3	500.3	516.1	539.5	544.7	547.3
80°	54.7	70.4	112.0	127.7	281.4	349.2	367.4	380.5	401.3	401.3	406.6
82.5°	41.7	54.7	80.8	91.2	190.3	239.8	255.4	263.2	276.3	276.3	276.3
85°	26.0	33.9	52.1	59.9	114.7	145.9	156.4	159.0	169.4	172.0	172.0
87.5°	13.0	18.2	33.9	36.5	59.9	75.6	75.6	80.8	80.8	78.2	75.6
90°	9.6	17.3	24.9	26.9	42.3	62.8	73.0	64.9	48.7	36.5	36.5
92.5°	38.4	103.7	169.1	185.4	260.6	361.0	411.1	360.3	258.7	182.5	175.3
95°	92.2	211.8	331.3	361.1	641.3	1014.8	1201.6	1072.2	813.6	619.5	597.5
97.5°	159.5	264.9	370.4	396.7	863.9	1486.7	1798.1	1716.3	1552.9	1430.2	1388.4
100°	211.3	306.9	402.6	426.5	944.9	1635.9	1981.5	1987.5	1999.5	2008.4	1958.6
102.5°	255.5	344.7	433.9	456.2	982.0	1682.9	2033.4	2137.6	2345.9	2502.1	2459.5
105°	330.4	405.9	481.6	500.4	1009.5	1688.2	2027.6	2261.2	2728.2	3078.5	3055.5
107.5°	407.3	477.7	548.1	565.7	1014.6	1613.2	1912.4	2238.1	2889.6	3378.1	3383.7
110°	459.2	522.8	586.4	602.2	1006.9	1546.5	1816.4	2180.5	2908.8	3455.0	3478.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	510.0	570.6	631.2	646.4	1007.2	1488.3	1728.9	2101.6	2846.9	3405.9	3442.7
115°	586.9	642.8	698.7	712.7	1016.6	1421.7	1624.2	1983.2	2701.2	3239.8	3290.7
117.5°	662.7	713.6	764.4	777.1	1035.4	1379.9	1552.2	1876.2	2524.2	3010.2	3066.7
120°	706.9	754.8	802.6	814.5	1050.8	1365.8	1523.4	1819.4	2411.6	2855.6	2910.4
122.5°	750.1	798.4	846.6	858.7	1072.9	1358.5	1501.3	1767.8	2301.1	2700.9	2755.1
125°	816.4	860.4	904.4	915.4	1102.6	1352.4	1477.2	1703.7	2156.6	2496.3	2546.2
127.5°	870.3	914.6	959.0	970.1	1132.4	1348.9	1457.1	1651.5	2040.4	2332.1	2374.1
130°	899.1	946.9	994.7	1006.6	1154.2	1351.0	1449.4	1622.5	1968.7	2228.4	2267.3
132.5°	928.9	976.7	1024.5	1036.4	1171.9	1352.4	1442.7	1597.6	1907.5	2140.0	2174.8
135°	973.0	1016.6	1060.1	1071.0	1191.0	1351.1	1431.1	1560.9	1820.5	2015.2	2045.1
137.5°	1018.2	1061.3	1104.3	1115.1	1219.8	1359.4	1429.3	1539.0	1758.4	1922.9	1947.5
140°	1055.6	1095.3	1135.0	1144.9	1237.5	1360.8	1422.5	1517.3	1706.9	1849.0	1871.9
142.5°	1084.4	1121.1	1157.8	1167.0	1252.2	1365.7	1422.5	1505.7	1672.2	1797.1	1816.8
145°	1128.6	1160.6	1192.7	1200.7	1271.4	1365.7	1412.9	1480.9	1617.2	1719.3	1734.3
147.5°	1172.8	1204.0	1235.2	1242.9	1299.6	1375.1	1412.9	1466.5	1573.6	1654.0	1666.4
150°	1201.6	1229.8	1257.9	1265.0	1314.2	1380.0	1412.9	1458.1	1548.6	1616.5	1626.5
152.5°	1231.4	1252.7	1274.1	1279.4	1323.9	1383.2	1412.9	1451.5	1528.8	1586.7	1594.3
155°	1275.6	1291.4	1307.2	1311.1	1345.0	1390.2	1412.9	1443.6	1505.1	1551.2	1556.2
157.5°	1308.2	1323.6	1339.0	1342.8	1366.1	1397.3	1412.9	1436.8	1484.6	1520.5	1524.1
160°	1330.3	1342.3	1354.2	1357.2	1375.8	1400.5	1412.9	1433.4	1474.4	1505.1	1507.1
162.5°	1352.4	1361.4	1370.4	1372.6	1386.0	1403.9	1412.9	1430.2	1464.8	1490.7	1492.6
165°	1376.4	1384.5	1392.6	1394.6	1400.7	1408.8	1412.9	1425.3	1450.1	1468.6	1470.6
167.5°	1398.5	1402.3	1406.2	1407.2	1412.3	1419.1	1422.5	1430.6	1446.8	1459.0	1459.8
170°	1412.9	1416.7	1420.6	1421.6	1421.9	1422.3	1422.5	1430.6	1446.8	1459.0	1459.0
172.5°	1420.6	1421.4	1422.3	1422.5	1422.5	1422.5	1422.5	1428.9	1441.7	1451.3	1450.5
175°	1431.1	1431.1	1431.1	1431.1	1428.3	1424.4	1422.5	1426.6	1434.7	1440.7	1440.7
177.5°	1431.1	1431.1	1431.1	1431.1	1428.9	1425.9	1424.4	1427.7	1434.0	1438.8	1438.0
180°	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1	1431.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	810.5	810.5
2.5°	865.2	860.0
5°	1112.8	1118.0
7.5°	1498.5	1496.0
10°	1863.4	1886.9
12.5°	2129.2	2134.4
15°	2290.8	2301.2
17.5°	2353.4	2356.0
20°	2356.0	2350.7
22.5°	2327.3	2322.1
25°	2293.4	2290.8
27.5°	2262.1	2264.7
30°	2249.1	2256.9
32.5°	2249.1	2262.1
35°	2254.3	2267.3
37.5°	2251.7	2267.3
40°	2241.3	2259.6
42.5°	2212.6	2225.7
45°	2168.3	2184.0
47.5°	2111.0	2121.4
50°	2038.0	2048.4
52.5°	1946.8	1949.4
55°	1837.3	1847.8
57.5°	1720.0	1722.6
60°	1589.7	1597.6
62.5°	1451.6	1451.6
65°	1305.7	1310.9
67.5°	1154.5	1167.6
70°	1000.8	1003.4
72.5°	849.6	849.6
75°	693.2	695.8
77.5°	544.7	544.7
80°	403.9	406.6
82.5°	278.9	284.1
85°	174.6	174.6
87.5°	80.8	73.0
90°	36.5	36.5
92.5°	146.2	117.2
95°	509.6	421.7
97.5°	1221.0	1053.7
100°	1759.2	1559.9
102.5°	2288.7	2118.0
105°	2963.7	2871.9
107.5°	3405.9	3428.0
110°	3574.5	3670.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3589.5	3736.3
115°	3494.3	3697.9
117.5°	3292.5	3518.4
120°	3129.9	3349.3
122.5°	2971.5	3188.0
125°	2745.6	2944.9
127.5°	2542.4	2710.6
130°	2422.7	2578.0
132.5°	2313.9	2453.1
135°	2165.1	2285.1
137.5°	2045.7	2143.8
140°	1963.7	2055.5
142.5°	1895.8	1974.8
145°	1794.0	1853.8
147.5°	1715.9	1765.4
150°	1666.7	1706.9
152.5°	1624.6	1655.0
155°	1576.3	1596.4
157.5°	1538.1	1552.2
160°	1515.3	1523.4
162.5°	1500.3	1508.0
165°	1478.8	1486.9
167.5°	1463.3	1466.7
170°	1459.0	1459.0
172.5°	1447.6	1444.6
175°	1440.7	1440.7
177.5°	1434.5	1431.1
180°	1431.1	1431.1



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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	4.65	5.46	5.68	6.51	7.91	17.83	18.64	18.86	19.68	21.08
	3H	5.36	6.08	6.40	7.13	8.55	19.67	20.40	20.71	21.45	22.87
	4H	5.65	6.34	6.70	7.39	8.82	20.31	21.00	21.36	22.05	23.48
	6H	5.90	6.54	6.96	7.59	9.03	20.74	21.38	21.80	22.43	23.87
	8H	5.97	6.57	7.03	7.64	9.08	20.86	21.47	21.93	22.54	23.97
	12H	5.98	6.56	7.05	7.62	9.08	20.93	21.50	22.00	22.57	24.03
4H	2H	11.86	12.55	12.92	13.61	15.03	18.10	18.79	19.16	19.84	21.27
	3H	13.43	14.00	14.49	15.08	16.52	20.14	20.72	21.21	21.80	23.24
	4H	13.52	14.05	14.59	15.12	16.58	20.91	21.44	21.98	22.51	23.97
	6H	13.53	13.98	14.61	15.08	16.53	21.44	21.90	22.52	22.99	24.45
	8H	13.50	13.93	14.58	15.02	16.49	21.60	22.03	22.69	23.12	24.59
	12H	13.46	13.84	14.56	14.94	16.42	21.70	22.08	22.79	23.18	24.66
8H	4H	14.96	15.39	16.04	16.47	17.94	20.96	21.39	22.04	22.48	23.95
	6H	15.20	15.55	16.30	16.68	18.15	21.59	21.94	22.69	23.07	24.54
	8H	15.22	15.53	16.33	16.64	18.12	21.81	22.12	22.92	23.23	24.72
	12H	15.18	15.46	16.30	16.56	18.09	21.95	22.22	23.07	23.33	24.86
12H	4H	15.10	15.49	16.20	16.59	18.06	20.91	21.30	22.01	22.40	23.88
	6H	15.46	15.77	16.57	16.88	18.37	21.57	21.88	22.68	22.99	24.48
	8H	15.52	15.80	16.64	16.90	18.43	21.80	22.07	22.92	23.18	24.70