

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: P938572

Luminaire Tested: SQ4-FB-150U-125D-935-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

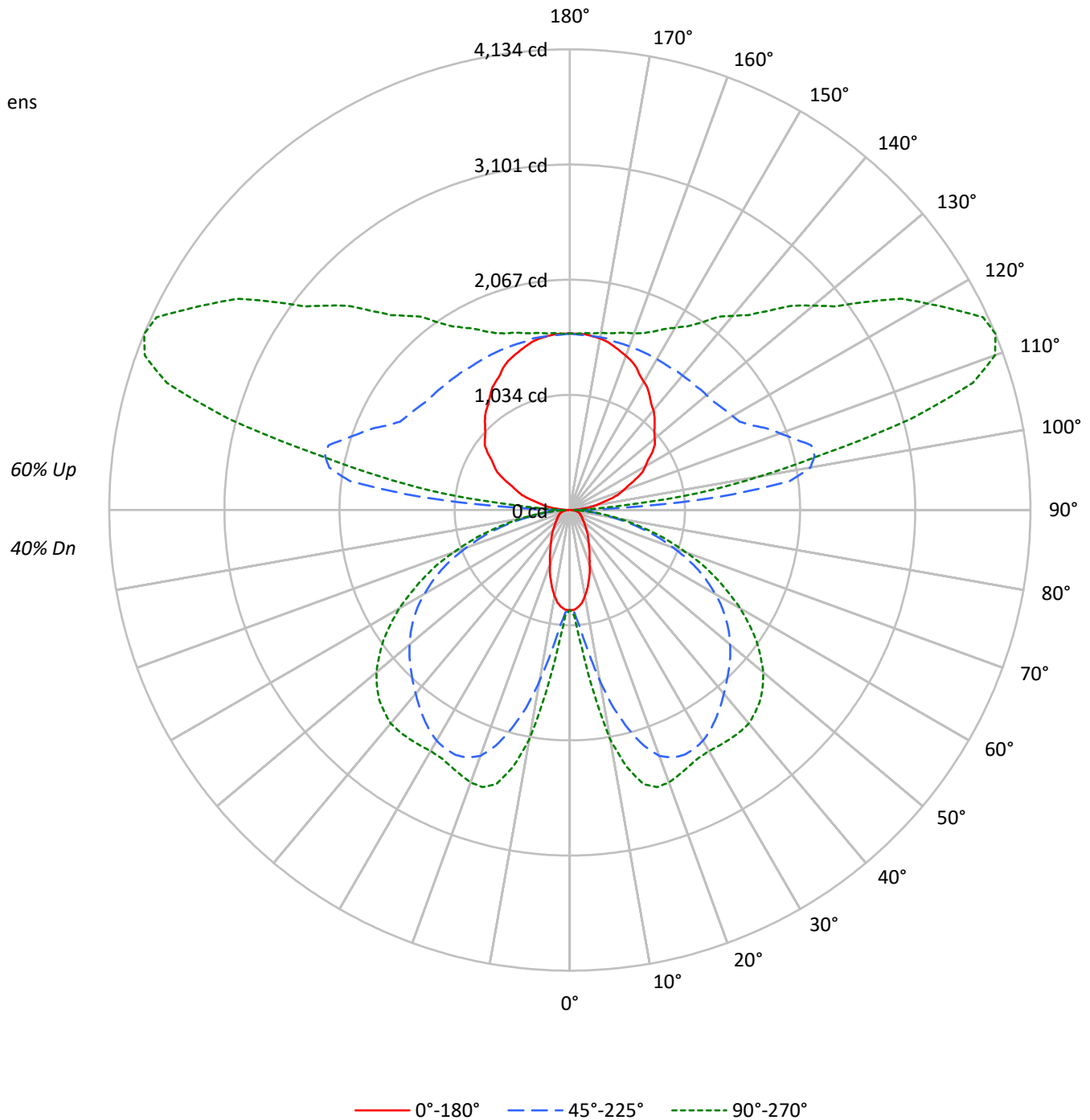
Test Method: LM-79-2019  
Report Number: P938572  
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-935-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17209.6 lumens  
Efficiency: N/A  
Efficacy: 103.4 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: General Diffuse  
  
Input Watts (W): 166.4  
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

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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°	4161	4161	4161
5°	4065	4810	5593
10°	3687	7010	9272
15°	3134	9159	11196
20°	2551	10613	11411
25°	2128	11107	11179
30°	1795	11176	11158
35°	1587	10991	11446
40°	1383	10750	11744
45°	1252	10573	11790
50°	1149	10414	11595
55°	1100	10182	11081
60°	1126	9734	10269
65°	1172	9055	9154
70°	1249	7896	7733
75°	1384	6439	6036
80°	1512	4465	4067
85°	1341	2369	2081

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 11790 cd/sqm



TEST NUMBER: P938572

CATALOG NUMBER: SQ4-FB-150U-125D-935-1D-UNV-STD-W-8

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.0	0.7
10°-20°	514.2	3.0
20°-30°	899.3	5.2
30°-40°	1157.7	6.7
40°-50°	1293.1	7.5
50°-60°	1238.5	7.2
60°-70°	981.5	5.7
70°-80°	577.2	3.4
80°-90°	166.4	1.0
90°-100°	771.9	4.5
100°-110°	2029.4	11.8
110°-120°	2104.3	12.2
120°-130°	1687.9	9.8
130°-140°	1324.4	7.7
140°-150°	1016.5	5.9
150°-160°	732.1	4.3
160°-170°	447.9	2.6
170°-180°	151.3	0.9
0°-30°	1529.5	8.9
0°-40°	2687.2	15.6
0°-60°	5218.8	30.3
0°-90°	6943.9	40.3
90°-120°	4905.6	28.5
90°-150°	8934.4	51.9
90°-180°	10266.0	59.7
0°-180°	17209.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	874	937	1056	1194	1237	81
15°	655	1208	2036	2468	2546	182
25°	418	1370	2425	2532	2535	193
35°	283	1309	2284	2414	2509	176
45°	193	1044	2019	2313	2416	149
55°	138	663	1713	1990	2044	126
65°	110	352	1272	1430	1450	109
75°	81	216	698	767	770	85
85°	29	66	173	190	193	31
90°	11	30	81	40	40	11
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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 CATALOG NUMBER: SQ4-FB-150U-125D-935-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8
2.5°	896.8	896.8	902.6	905.5	911.2	914.1	919.9	925.7	943.0	945.9	951.6
5°	873.7	885.3	922.8	937.2	977.6	1032.4	1055.5	1092.9	1170.7	1193.8	1208.2
7.5°	839.1	865.1	957.4	980.5	1081.4	1225.6	1286.1	1366.9	1490.8	1551.4	1600.5
10°	784.4	839.1	1003.5	1058.3	1222.7	1441.8	1554.3	1666.8	1854.2	1937.9	1969.6
12.5°	723.8	813.2	1052.6	1127.5	1364.0	1684.1	1819.6	1943.6	2157.0	2269.5	2286.8
15°	654.6	775.7	1098.7	1208.2	1513.9	1885.9	2035.9	2188.7	2387.7	2468.4	2488.6
17.5°	594.0	746.9	1141.9	1257.3	1629.3	2067.6	2220.4	2347.3	2508.8	2563.6	2578.0
20°	519.0	700.8	1170.7	1320.7	1750.4	2200.3	2347.3	2445.3	2555.0	2589.6	2595.3
22.5°	464.3	651.7	1188.1	1343.8	1831.1	2281.0	2405.0	2482.8	2557.8	2569.4	2572.3
25°	418.2	596.9	1185.2	1369.8	1900.4	2330.0	2425.2	2482.8	2526.1	2531.9	2531.9
27.5°	374.9	536.3	1173.6	1375.6	1952.3	2341.6	2416.5	2456.9	2477.1	2488.6	2488.6
30°	337.4	478.7	1144.8	1364.0	1975.4	2330.0	2390.5	2410.7	2430.9	2448.2	2456.9
32.5°	308.6	423.9	1101.6	1340.9	1978.2	2301.2	2344.4	2356.0	2384.8	2425.2	2439.6
35°	282.6	369.1	1052.6	1309.2	1960.9	2255.1	2283.9	2295.4	2353.1	2413.6	2433.8
37.5°	256.6	328.7	989.1	1254.4	1935.0	2200.3	2220.4	2240.6	2330.0	2402.1	2425.2
40°	230.7	294.1	914.1	1193.8	1894.6	2133.9	2151.2	2182.9	2301.2	2384.8	2407.8
42.5°	210.5	265.3	833.4	1130.4	1842.7	2058.9	2084.9	2131.0	2266.6	2356.0	2381.9
45°	193.2	236.4	746.9	1043.9	1776.3	1981.1	2018.6	2082.0	2226.2	2312.8	2335.8
47.5°	175.9	216.2	657.5	954.5	1704.3	1903.2	1952.3	2024.4	2171.4	2255.1	2275.3
50°	161.5	196.1	568.1	859.3	1626.4	1819.6	1877.3	1952.3	2102.2	2180.1	2206.0
52.5°	150.0	178.7	484.4	764.2	1537.0	1733.1	1799.4	1877.3	2018.6	2093.5	2110.8
55°	138.4	164.4	412.4	663.3	1444.7	1640.8	1712.9	1787.9	1926.3	1989.8	2001.3
57.5°	132.7	152.8	351.8	568.1	1346.7	1537.0	1617.8	1687.0	1816.7	1865.7	1877.3
60°	124.0	144.2	305.7	487.3	1240.0	1438.9	1508.1	1577.4	1687.0	1727.3	1736.0
62.5°	115.4	138.4	271.1	409.5	1130.4	1323.6	1392.8	1456.2	1548.5	1577.4	1588.9
65°	109.6	132.7	245.1	351.8	1018.0	1202.5	1271.7	1326.5	1401.5	1430.3	1436.0
67.5°	103.8	126.9	224.9	302.8	905.5	1081.4	1133.2	1185.2	1242.9	1271.7	1274.6
70°	95.2	121.2	207.6	268.2	790.1	943.0	986.2	1041.0	1087.2	1101.6	1110.2
72.5°	89.4	112.5	196.1	242.2	671.9	810.3	850.7	882.4	922.8	937.2	937.2
75°	80.8	101.0	184.5	216.2	550.8	663.3	697.9	729.6	761.3	767.1	758.5
77.5°	72.1	89.4	158.6	181.6	429.7	524.8	553.6	571.0	596.9	602.7	605.6
80°	60.6	77.9	124.0	141.3	311.4	386.4	406.6	421.1	444.1	444.1	449.9
82.5°	46.2	60.6	89.4	101.0	210.5	265.3	282.6	291.2	305.7	305.7	305.7
85°	28.8	37.5	57.7	66.3	126.9	161.5	173.0	175.9	187.4	190.3	190.3
87.5°	14.4	20.2	37.5	40.4	66.3	83.7	83.7	89.4	89.4	86.5	83.7
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



TEST NUMBER: P938572

CATALOG NUMBER: SQ4-FB-150U-125D-935-1D-UNV-STD-W-8

**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°	896.8	896.8
2.5°	957.4	951.6
5°	1231.3	1237.1
7.5°	1658.1	1655.3
10°	2061.8	2087.8
12.5°	2356.0	2361.7
15°	2534.8	2546.3
17.5°	2604.0	2606.9
20°	2606.9	2601.1
22.5°	2575.2	2569.4
25°	2537.7	2534.8
27.5°	2503.0	2505.9
30°	2488.6	2497.3
32.5°	2488.6	2503.0
35°	2494.4	2508.8
37.5°	2491.5	2508.8
40°	2480.0	2500.2
42.5°	2448.2	2462.7
45°	2399.2	2416.5
47.5°	2335.8	2347.3
50°	2255.1	2266.6
52.5°	2154.1	2157.0
55°	2033.0	2044.5
57.5°	1903.2	1906.1
60°	1759.0	1767.7
62.5°	1606.2	1606.2
65°	1444.7	1450.5
67.5°	1277.5	1291.9
70°	1107.3	1110.2
72.5°	940.1	940.1
75°	767.1	770.0
77.5°	602.7	602.7
80°	447.0	449.9
82.5°	308.6	314.3
85°	193.2	193.2
87.5°	89.4	80.8
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	5.01	5.82	6.04	6.86	8.26	18.19	19.00	19.21	20.04	21.44
	3H	5.71	6.44	6.75	7.49	8.90	20.02	20.75	21.06	21.80	23.22
	4H	6.01	6.70	7.06	7.75	9.17	20.66	21.35	21.71	22.41	23.83
	6H	6.25	6.89	7.31	7.94	9.38	21.09	21.73	22.15	22.78	24.22
	8H	6.32	6.93	7.39	8.00	9.43	21.21	21.82	22.28	22.89	24.32
	12H	6.34	6.91	7.41	7.98	9.44	21.28	21.85	22.35	22.92	24.38
4H	2H	12.22	12.91	13.27	13.96	15.38	18.45	19.14	19.51	20.20	21.62
	3H	13.78	14.36	14.84	15.44	16.88	20.49	21.07	21.56	22.15	23.59
	4H	13.87	14.40	14.94	15.47	16.93	21.26	21.79	22.33	22.86	24.32
	6H	13.88	14.34	14.96	15.43	16.88	21.80	22.25	22.88	23.35	24.80
	8H	13.85	14.28	14.94	15.37	16.84	21.96	22.38	23.04	23.47	24.94
	12H	13.81	14.19	14.91	15.29	16.77	22.05	22.43	23.15	23.53	25.01
8H	4H	15.31	15.74	16.39	16.82	18.30	21.32	21.74	22.40	22.83	24.30
	6H	15.55	15.90	16.66	17.03	18.50	21.94	22.30	23.05	23.42	24.89
	8H	15.57	15.88	16.68	16.99	18.48	22.16	22.47	23.27	23.58	25.07
	12H	15.53	15.81	16.65	16.91	18.44	22.30	22.58	23.42	23.68	25.21
12H	4H	15.45	15.84	16.55	16.94	18.41	21.27	21.65	22.36	22.75	24.23
	6H	15.81	16.12	16.92	17.23	18.72	21.92	22.23	23.04	23.34	24.83
	8H	15.88	16.15	16.99	17.25	18.78	22.15	22.42	23.27	23.53	25.06