

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: P937530

Luminaire Tested: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937530  
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-92765-1D-UNV-STD-W-12-6500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

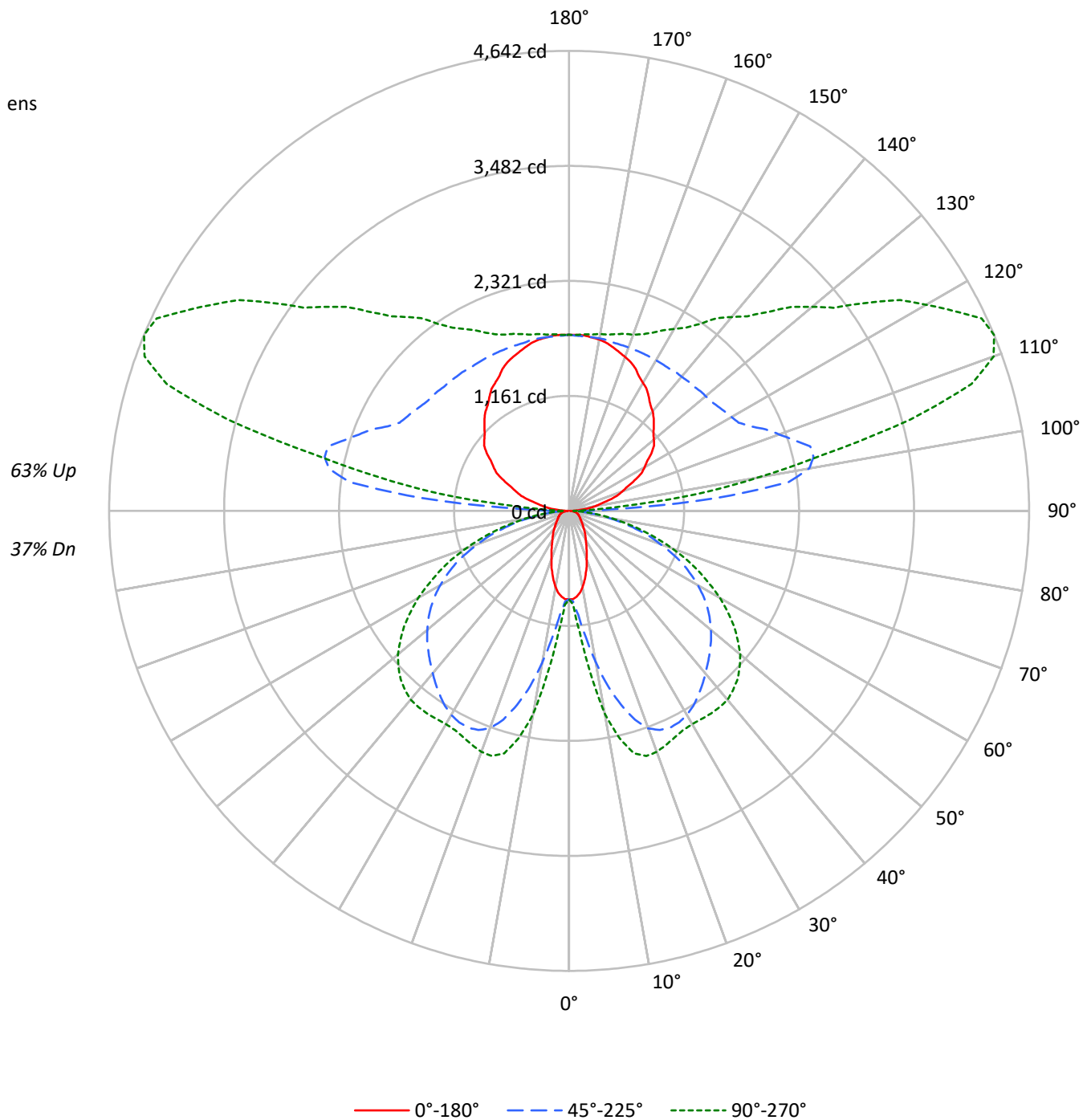
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18433.5 lumens  
Efficiency: N/A  
Efficacy: 124.9 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 147.6  
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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

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

	0°	45°	90°
0°	2759	2759	2759
5°	2697	3190	3709
10°	2447	4652	6149
15°	2081	6079	7425
20°	1694	7046	7568
25°	1414	7375	7414
30°	1193	7423	7400
35°	1055	7302	7591
40°	920	7144	7789
45°	834	7029	7819
50°	765	6925	7690
55°	734	6773	7349
60°	752	6479	6811
65°	784	6030	6071
70°	837	5262	5129
75°	931	4294	4002
80°	1024	2982	2697
85°	930	1585	1380

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7819 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.4	0.6
10°-20°	511.5	2.8
20°-30°	894.7	4.9
30°-40°	1151.7	6.2
40°-50°	1286.4	7.0
50°-60°	1232.1	6.7
60°-70°	976.4	5.3
70°-80°	574.1	3.1
80°-90°	166.3	0.9
90°-100°	866.6	4.7
100°-110°	2278.3	12.4
110°-120°	2362.4	12.8
120°-130°	1894.9	10.3
130°-140°	1486.8	8.1
140°-150°	1141.2	6.2
150°-160°	821.9	4.5
160°-170°	502.9	2.7
170°-180°	169.9	0.9
0°-30°	1521.5	8.3
0°-40°	2673.2	14.5
0°-60°	5191.7	28.2
0°-90°	6908.6	37.5
90°-120°	5507.3	29.9
90°-150°	10030.3	54.4
90°-180°	11525.0	62.5
0°-180°	18433.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	869	932	1050	1188	1231	80
15°	651	1202	2025	2456	2533	181
25°	416	1363	2413	2519	2522	192
35°	281	1302	2272	2401	2496	176
45°	192	1038	2008	2301	2404	149
55°	138	660	1704	1979	2034	125
65°	109	350	1265	1423	1443	108
75°	80	215	694	763	766	84
85°	29	66	172	189	192	30
90°	12	33	91	45	45	12
95°	115	449	1493	770	524	127
105°	410	622	2519	3824	3568	435
115°	729	885	2018	4024	4594	720
125°	1014	1137	1835	3101	3658	900
135°	1209	1330	1778	2503	2839	935
145°	1402	1492	1755	2136	2303	878
155°	1584	1629	1755	1927	1983	728
165°	1710	1732	1755	1824	1847	483
175°	1778	1778	1767	1790	1790	169
180°	1778	1778	1778	1778	1778	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	892.1	892.1	892.1	892.1	892.1	892.1	892.1	892.1	892.1	892.1	892.1
2.5°	892.1	892.1	897.9	900.7	906.5	909.3	915.1	920.8	938.0	940.9	946.6
5°	869.2	880.7	917.9	932.3	972.4	1027.0	1049.9	1087.3	1164.7	1187.7	1202.0
7.5°	834.8	860.6	952.4	975.3	1075.7	1219.2	1279.5	1359.8	1483.2	1543.4	1592.2
10°	780.3	834.8	998.3	1052.8	1216.4	1434.4	1546.3	1658.1	1844.6	1927.8	1959.3
12.5°	720.0	808.9	1047.0	1121.7	1356.9	1675.3	1810.2	1933.5	2145.8	2257.7	2274.9
15°	651.2	771.6	1093.0	1202.0	1506.1	1876.1	2025.3	2177.3	2375.3	2455.6	2475.7
17.5°	590.9	743.0	1136.1	1250.8	1620.8	2056.9	2208.9	2335.1	2495.8	2550.3	2564.6
20°	516.3	697.1	1164.7	1313.9	1741.3	2188.8	2335.1	2432.7	2541.7	2576.1	2581.8
22.5°	461.8	648.3	1182.0	1336.9	1821.6	2269.1	2392.5	2469.9	2544.5	2556.0	2558.9
25°	415.9	593.8	1179.1	1362.7	1890.5	2317.9	2412.6	2469.9	2513.0	2518.7	2518.7
27.5°	372.9	533.6	1167.6	1368.4	1942.1	2329.4	2404.0	2444.1	2464.2	2475.7	2475.7
30°	335.6	476.2	1138.9	1356.9	1965.1	2317.9	2378.1	2398.2	2418.3	2435.5	2444.1
32.5°	306.9	421.7	1095.9	1334.0	1967.9	2289.2	2332.3	2343.7	2372.4	2412.6	2426.9
35°	281.1	367.2	1047.0	1302.4	1950.7	2243.3	2272.0	2283.5	2340.9	2401.1	2421.2
37.5°	255.3	327.0	983.9	1247.9	1924.9	2188.8	2208.9	2229.0	2317.9	2389.6	2412.6
40°	229.5	292.6	909.3	1187.7	1884.8	2122.8	2140.1	2171.6	2289.2	2372.4	2395.4
42.5°	209.4	263.9	829.0	1124.6	1833.1	2048.3	2074.1	2120.0	2254.8	2343.7	2369.5
45°	192.2	235.2	743.0	1038.4	1767.1	1970.8	2008.1	2071.2	2214.6	2300.7	2323.6
47.5°	175.0	215.1	654.0	949.5	1695.4	1893.4	1942.1	2013.8	2160.1	2243.3	2263.4
50°	160.6	195.1	565.1	854.8	1618.0	1810.2	1867.5	1942.1	2091.3	2168.7	2194.6
52.5°	149.2	177.9	481.9	760.2	1529.0	1724.1	1790.1	1867.5	2008.1	2082.7	2099.9
55°	137.7	163.5	410.2	659.8	1437.3	1632.3	1704.0	1778.6	1916.3	1979.4	1990.9
57.5°	132.0	152.0	350.0	565.1	1339.7	1529.0	1609.4	1678.2	1807.3	1856.1	1867.5
60°	123.3	143.4	304.1	484.8	1233.6	1431.5	1500.4	1569.2	1678.2	1718.4	1727.0
62.5°	114.7	137.7	269.6	407.3	1124.6	1316.8	1385.6	1448.7	1540.5	1569.2	1580.7
65°	109.0	132.0	243.8	350.0	1012.6	1196.3	1265.1	1319.6	1394.2	1422.9	1428.6
67.5°	103.3	126.2	223.7	301.2	900.7	1075.7	1127.4	1179.1	1236.5	1265.1	1268.0
70°	94.7	120.5	206.5	266.8	786.0	938.0	981.1	1035.6	1081.5	1095.9	1104.5
72.5°	88.9	111.9	195.1	241.0	668.4	806.1	846.2	877.8	917.9	932.3	932.3
75°	80.3	100.4	183.6	215.1	547.9	659.8	694.2	725.8	757.3	763.0	754.4
77.5°	71.7	88.9	157.8	180.7	427.4	522.1	550.8	568.0	593.8	599.5	602.4
80°	60.2	77.5	123.3	140.6	309.8	384.4	404.5	418.8	441.8	441.8	447.5
82.5°	45.9	60.2	88.9	100.4	209.4	263.9	281.1	289.7	304.1	304.1	304.1
85°	28.7	37.3	57.4	66.0	126.2	160.6	172.1	175.0	186.5	189.3	189.3
87.5°	14.3	20.1	37.3	40.2	66.0	83.2	83.2	88.9	88.9	86.1	83.2
90°	12.0	21.5	31.0	33.4	52.5	77.9	90.6	80.6	60.4	45.3	45.3
92.5°	47.7	128.8	210.0	230.3	323.8	448.4	510.7	447.6	321.4	226.7	217.7
95°	114.6	263.0	411.5	448.6	796.6	1260.6	1492.6	1332.0	1010.6	769.5	742.2
97.5°	198.0	329.0	460.0	492.8	1073.0	1846.7	2233.6	2132.0	1928.9	1776.6	1724.7
100°	262.5	381.2	500.0	529.7	1173.6	2032.2	2461.5	2469.0	2483.8	2494.9	2433.0
102.5°	317.4	428.2	539.0	566.7	1219.8	2090.6	2526.0	2655.3	2914.1	3108.2	3055.1
105°	410.5	504.3	598.2	621.6	1254.0	2097.2	2518.8	2808.9	3389.0	3824.1	3795.6
107.5°	505.9	593.4	680.9	702.8	1260.4	2003.8	2375.6	2780.2	3589.5	4196.3	4203.2
110°	570.4	649.4	728.3	748.1	1250.8	1921.1	2256.2	2708.6	3613.3	4291.8	4321.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.6	708.9	784.2	803.0	1251.3	1848.9	2147.7	2610.7	3536.6	4231.0	4276.6
115°	729.0	798.5	867.9	885.3	1262.7	1766.0	2017.7	2463.6	3355.6	4024.5	4087.7
117.5°	823.3	886.4	949.5	965.3	1286.3	1714.2	1928.2	2330.6	3135.6	3739.4	3809.5
120°	878.2	937.5	997.0	1011.8	1305.4	1696.8	1892.4	2260.2	2995.7	3547.3	3615.5
122.5°	931.9	991.9	1051.7	1066.7	1332.8	1687.6	1865.0	2196.1	2858.4	3355.2	3422.4
125°	1014.2	1068.8	1123.4	1137.1	1369.7	1680.0	1835.1	2116.4	2679.1	3101.0	3162.9
127.5°	1081.0	1136.1	1191.3	1205.1	1406.8	1675.6	1810.1	2051.6	2534.7	2897.0	2949.2
130°	1116.8	1176.2	1235.6	1250.4	1433.8	1678.3	1800.5	2015.6	2445.7	2768.2	2816.5
132.5°	1153.8	1213.2	1272.6	1287.4	1455.6	1679.9	1792.1	1984.6	2369.6	2658.4	2701.6
135°	1208.7	1262.7	1316.9	1330.4	1479.5	1678.4	1777.8	1939.1	2261.4	2503.2	2540.5
137.5°	1264.8	1318.3	1371.9	1385.2	1515.3	1688.7	1775.5	1911.7	2184.3	2388.8	2419.3
140°	1311.3	1360.7	1409.9	1422.2	1537.2	1690.5	1767.0	1884.8	2120.3	2296.9	2325.4
142.5°	1347.1	1392.7	1438.3	1449.7	1555.4	1696.5	1767.0	1870.5	2077.3	2232.4	2256.9
145°	1402.0	1441.7	1481.5	1491.5	1579.3	1696.6	1755.2	1839.7	2008.9	2135.8	2154.3
147.5°	1456.9	1495.6	1534.3	1544.0	1614.3	1708.2	1755.2	1821.7	1954.8	2054.7	2070.1
150°	1492.6	1527.6	1562.6	1571.4	1632.7	1714.4	1755.2	1811.4	1923.8	2008.1	2020.5
152.5°	1529.6	1556.1	1582.7	1589.3	1644.6	1718.3	1755.2	1803.2	1899.1	1971.1	1980.5
155°	1584.5	1604.1	1623.8	1628.7	1670.9	1727.1	1755.2	1793.3	1869.6	1926.9	1933.1
157.5°	1625.1	1644.2	1663.3	1668.1	1697.1	1735.9	1755.2	1784.8	1844.2	1888.8	1893.2
160°	1652.5	1667.4	1682.2	1686.0	1709.0	1739.8	1755.2	1780.6	1831.5	1869.6	1872.1
162.5°	1679.9	1691.0	1702.2	1705.0	1721.7	1744.0	1755.2	1776.6	1819.5	1851.8	1854.2
165°	1709.8	1719.8	1729.9	1732.4	1740.0	1750.1	1755.2	1770.6	1801.3	1824.3	1826.8
167.5°	1737.2	1742.0	1746.8	1748.0	1754.3	1762.8	1767.0	1777.2	1797.4	1812.5	1813.5
170°	1755.2	1760.0	1764.7	1765.9	1766.3	1766.8	1767.0	1777.2	1797.4	1812.5	1812.5
172.5°	1764.7	1765.7	1766.8	1767.0	1767.0	1767.0	1767.0	1775.0	1790.9	1802.9	1801.9
175°	1777.8	1777.8	1777.8	1777.8	1774.2	1769.4	1767.0	1772.1	1782.2	1789.7	1789.7
177.5°	1777.8	1777.8	1777.8	1777.8	1775.1	1771.3	1769.4	1773.5	1781.4	1787.3	1786.3
180°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	892.1	892.1
2.5°	952.4	946.6
5°	1225.0	1230.7
7.5°	1649.5	1646.7
10°	2051.1	2076.9
12.5°	2343.7	2349.5
15°	2521.6	2533.1
17.5°	2590.4	2593.3
20°	2593.3	2587.6
22.5°	2561.7	2556.0
25°	2524.4	2521.6
27.5°	2490.0	2492.9
30°	2475.7	2484.3
32.5°	2475.7	2490.0
35°	2481.4	2495.8
37.5°	2478.5	2495.8
40°	2467.1	2487.2
42.5°	2435.5	2449.9
45°	2386.8	2404.0
47.5°	2323.6	2335.1
50°	2243.3	2254.8
52.5°	2142.9	2145.8
55°	2022.4	2033.9
57.5°	1893.4	1896.2
60°	1749.9	1758.5
62.5°	1597.9	1597.9
65°	1437.3	1443.0
67.5°	1270.9	1285.2
70°	1101.6	1104.5
72.5°	935.2	935.2
75°	763.0	765.9
77.5°	599.5	599.5
80°	444.6	447.5
82.5°	306.9	312.7
85°	192.2	192.2
87.5°	88.9	80.3
90°	45.3	45.3
92.5°	181.6	145.5
95°	633.0	523.8
97.5°	1516.8	1308.9
100°	2185.4	1937.7
102.5°	2843.0	2631.0
105°	3681.5	3567.6
107.5°	4230.9	4258.4
110°	4440.3	4559.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4459.0	4641.5
115°	4340.7	4593.6
117.5°	4090.0	4370.6
120°	3888.0	4160.6
122.5°	3691.2	3960.1
125°	3410.5	3658.2
127.5°	3158.2	3367.1
130°	3009.4	3202.5
132.5°	2874.5	3047.4
135°	2689.5	2838.6
137.5°	2541.2	2663.2
140°	2439.4	2553.4
142.5°	2355.0	2453.1
145°	2228.6	2302.8
147.5°	2131.5	2193.0
150°	2070.4	2120.3
152.5°	2018.1	2055.8
155°	1958.1	1983.0
157.5°	1910.7	1928.2
160°	1882.3	1892.4
162.5°	1863.7	1873.3
165°	1836.9	1847.0
167.5°	1817.7	1821.9
170°	1812.5	1812.5
172.5°	1798.2	1794.5
175°	1789.7	1789.7
177.5°	1782.1	1777.8
180°	1777.8	1777.8



TEST NUMBER: P937530  
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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	3.27	4.06	4.32	5.11	6.55	16.46	17.25	17.51	18.31	19.74
	3H	3.97	4.67	5.03	5.74	7.20	18.30	19.01	19.36	20.07	21.53
	4H	4.26	4.93	5.34	6.00	7.46	18.95	19.61	20.02	20.69	22.15
	6H	4.51	5.13	5.59	6.20	7.67	19.38	19.99	20.46	21.07	22.54
	8H	4.57	5.16	5.66	6.25	7.72	19.50	20.08	20.58	21.17	22.64
	12H	4.59	5.15	5.68	6.23	7.73	19.57	20.12	20.66	21.21	22.70
4H	2H	10.48	11.15	11.56	12.22	13.69	16.73	17.40	17.80	18.47	19.93
	3H	12.04	12.60	13.13	13.70	15.18	18.77	19.33	19.86	20.43	21.90
	4H	12.13	12.65	13.23	13.74	15.23	19.54	20.05	20.63	21.14	22.63
	6H	12.14	12.58	13.24	13.69	15.18	20.08	20.52	21.18	21.63	23.12
	8H	12.12	12.53	13.22	13.63	15.14	20.24	20.65	21.34	21.75	23.26
	12H	12.07	12.44	13.19	13.56	15.07	20.33	20.71	21.45	21.82	23.33
8H	4H	13.58	13.99	14.68	15.09	16.60	19.59	20.00	20.69	21.11	22.61
	6H	13.81	14.16	14.94	15.30	16.80	20.22	20.56	21.34	21.71	23.21
	8H	13.83	14.13	14.96	15.26	16.78	20.44	20.74	21.57	21.87	23.39
	12H	13.80	14.06	14.93	15.18	16.74	20.59	20.85	21.72	21.97	23.53
12H	4H	13.72	14.09	14.84	15.21	16.72	19.54	19.91	20.66	21.03	22.54
	6H	14.07	14.37	15.20	15.50	17.02	20.20	20.50	21.33	21.63	23.15
	8H	14.14	14.40	15.27	15.53	17.08	20.43	20.69	21.56	21.82	23.38