

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: P937929

Luminaire Tested: SQ4-FB-125U-075D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

**Test Information**

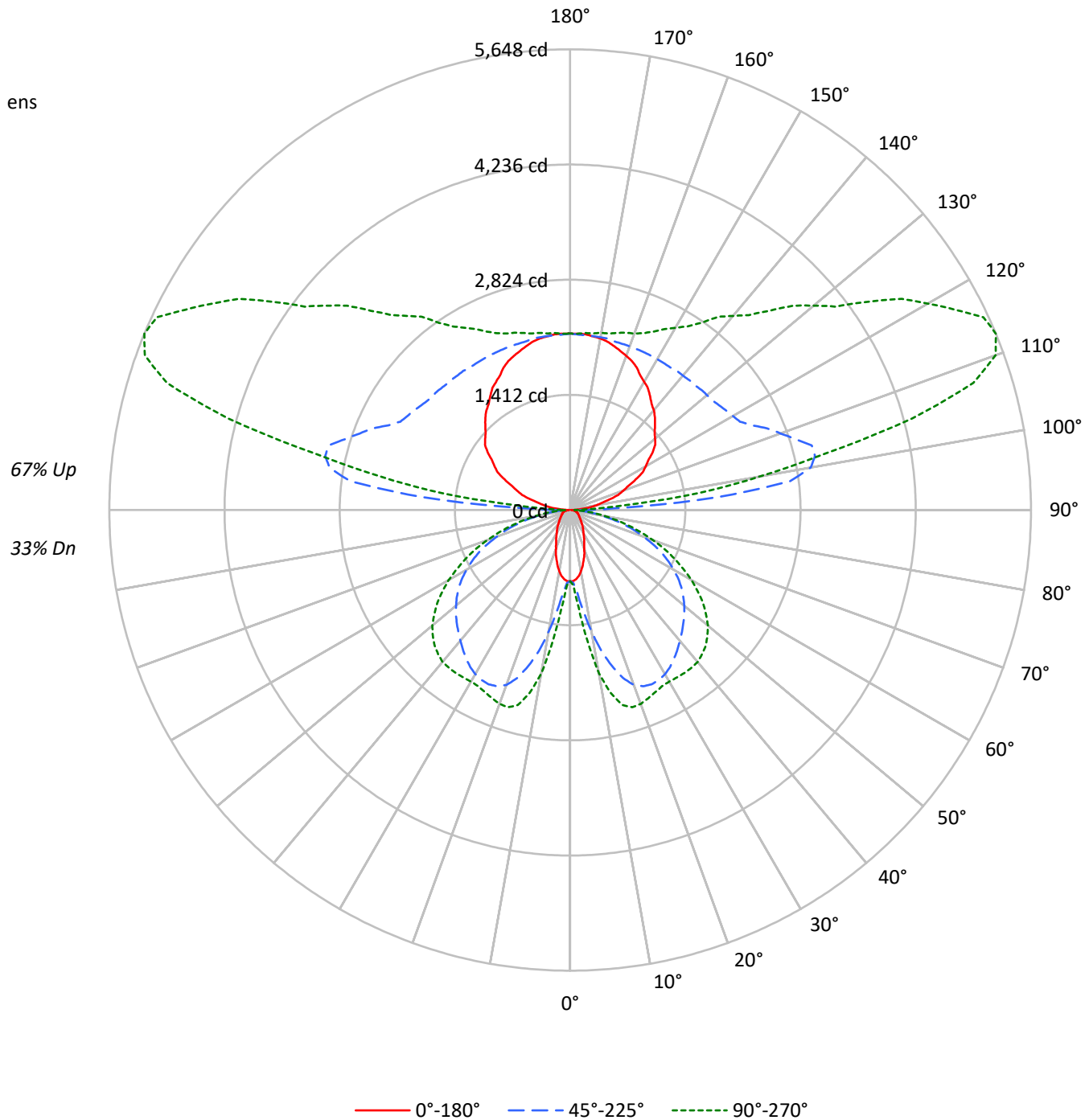
Test Method: LM-79-2019  
Report Number: P937929  
REPORT IS A COMBINATION OF REPORTS P933590 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-075D-92765-1D-UNV-STD-W-12-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20778.5 lumens  
Efficiency: N/A  
Efficacy: 124.6 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): 166.8  
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				
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	74	74	74	56	56	56	40	40	40	40	40	40	33
1	94	89	85	82	84	80	77	74	64	62	60	49	47	46	35	34	33	33	33	33	27
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	27	27	27	22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	31	26	24	23	23	23	23	18
4	70	59	52	46	63	54	47	42	43	38	34	33	29	26	23	21	19	19	19	19	15
5	64	53	45	39	57	48	41	35	38	33	29	29	25	23	21	18	16	16	16	16	13
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	19	16	14	14	14	14	11
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	12	12	12	10
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	11	11	11	8
9	47	34	27	22	42	31	25	20	25	20	17	19	16	13	14	12	10	10	10	10	7
10	43	31	24	19	39	28	22	18	23	18	15	18	14	12	13	10	9	9	9	9	7

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

	0°	45°	90°
0°	2697	2697	2697
5°	2636	3118	3626
10°	2392	4547	6011
15°	2034	5942	7258
20°	1656	6887	7397
25°	1382	7209	7247
30°	1166	7257	7233
35°	1032	7138	7421
40°	899	6984	7614
45°	815	6871	7643
50°	748	6770	7517
55°	717	6621	7184
60°	735	6333	6658
65°	766	5895	5935
70°	818	5144	5014
75°	910	4198	3912
80°	1002	2915	2636
85°	907	1549	1349

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7643 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.8	0.5
10°-20°	500.0	2.4
20°-30°	874.6	4.2
30°-40°	1125.8	5.4
40°-50°	1257.5	6.1
50°-60°	1204.4	5.8
60°-70°	954.5	4.6
70°-80°	561.2	2.7
80°-90°	164.2	0.8
90°-100°	1054.5	5.1
100°-110°	2772.3	13.3
110°-120°	2874.6	13.8
120°-130°	2305.7	11.1
130°-140°	1809.2	8.7
140°-150°	1388.6	6.7
150°-160°	1000.1	4.8
160°-170°	611.9	2.9
170°-180°	206.7	1.0
0°-30°	1487.4	7.2
0°-40°	2613.2	12.6
0°-60°	5075.0	24.4
0°-90°	6754.9	32.5
90°-120°	6701.3	32.3
90°-150°	12204.9	58.7
90°-180°	14024.0	67.5
0°-180°	20778.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	850	911	1026	1161	1203	78
15°	636	1175	1980	2400	2476	177
25°	407	1332	2358	2462	2465	187
35°	275	1273	2221	2347	2440	172
45°	188	1015	1963	2249	2350	145
55°	135	645	1666	1935	1988	123
65°	107	342	1237	1391	1411	106
75°	78	210	679	746	749	82
85°	28	64	168	185	188	30
90°	14	41	110	55	55	14
95°	139	546	1816	936	637	155
105°	499	756	3065	4653	4341	529
115°	887	1077	2455	4897	5590	876
125°	1234	1384	2233	3773	4451	1096
135°	1471	1619	2163	3046	3454	1138
145°	1706	1815	2136	2599	2802	1069
155°	1928	1982	2136	2345	2413	886
165°	2080	2108	2136	2220	2248	587
175°	2163	2163	2150	2178	2178	205
180°	2163	2163	2163	2163	2163	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1	872.1
2.5°	872.1	872.1	877.7	880.5	886.1	888.9	894.5	900.1	916.9	919.8	925.4
5°	849.6	860.9	897.3	911.3	950.6	1003.9	1026.3	1062.9	1138.6	1161.0	1175.0
7.5°	816.0	841.2	931.0	953.4	1051.5	1191.8	1250.7	1329.2	1449.8	1508.7	1556.4
10°	762.7	816.0	975.8	1029.1	1189.0	1402.2	1511.5	1620.9	1803.1	1884.5	1915.3
12.5°	703.8	790.8	1023.5	1096.5	1326.4	1637.7	1769.5	1890.1	2097.6	2206.9	2223.8
15°	636.5	754.3	1068.5	1175.0	1472.3	1834.0	1979.8	2128.4	2321.9	2400.4	2420.0
17.5°	577.6	726.3	1110.5	1222.7	1584.4	2010.6	2159.3	2282.6	2439.7	2493.0	2507.0
20°	504.7	681.4	1138.6	1284.4	1702.2	2139.6	2282.6	2378.0	2484.5	2518.2	2523.8
22.5°	451.5	633.7	1155.4	1306.8	1780.7	2218.2	2338.7	2414.4	2487.3	2498.6	2501.4
25°	406.6	580.5	1152.6	1332.0	1848.0	2265.8	2358.4	2414.4	2456.5	2462.1	2462.1
27.5°	364.5	521.6	1141.4	1337.7	1898.5	2277.0	2349.9	2389.2	2408.8	2420.0	2420.0
30°	328.1	465.5	1113.3	1326.4	1920.9	2265.8	2324.7	2344.3	2364.0	2380.8	2389.2
32.5°	300.0	412.2	1071.3	1304.0	1923.7	2237.8	2279.8	2291.1	2319.1	2358.4	2372.4
35°	274.8	358.9	1023.5	1273.2	1906.9	2192.9	2221.0	2232.2	2288.3	2347.1	2366.8
37.5°	249.6	319.7	961.8	1219.9	1881.7	2139.6	2159.3	2178.9	2265.8	2335.9	2358.4
40°	224.3	286.0	888.9	1161.0	1842.4	2075.1	2092.0	2122.8	2237.8	2319.1	2341.5
42.5°	204.7	258.0	810.4	1099.3	1791.9	2002.2	2027.5	2072.3	2204.1	2291.1	2316.3
45°	187.9	229.9	726.3	1015.1	1727.4	1926.5	1963.0	2024.7	2164.9	2249.0	2271.4
47.5°	171.1	210.3	639.3	928.2	1657.3	1850.8	1898.5	1968.6	2111.6	2192.9	2212.5
50°	157.0	190.7	552.4	835.6	1581.6	1769.5	1825.6	1898.5	2044.3	2120.0	2145.2
52.5°	145.8	173.9	471.1	743.1	1494.7	1685.4	1749.9	1825.6	1963.0	2035.9	2052.7
55°	134.6	159.8	401.0	644.9	1405.0	1595.6	1665.7	1738.6	1873.2	1934.9	1946.2
57.5°	129.0	148.6	342.1	552.4	1309.6	1494.7	1573.2	1640.5	1766.7	1814.4	1825.6
60°	120.6	140.2	297.2	473.9	1205.9	1399.3	1466.6	1533.9	1640.5	1679.8	1688.2
62.5°	112.2	134.6	263.6	398.2	1099.3	1287.2	1354.5	1416.2	1505.9	1533.9	1545.2
65°	106.6	129.0	238.4	342.1	989.9	1169.4	1236.7	1290.0	1362.9	1390.9	1396.5
67.5°	100.9	123.4	218.7	294.4	880.5	1051.5	1102.1	1152.6	1208.7	1236.7	1239.5
70°	92.5	117.8	201.9	260.8	768.3	916.9	959.0	1012.3	1057.2	1071.3	1079.7
72.5°	86.9	109.4	190.7	235.5	653.4	788.0	827.2	858.1	897.3	911.3	911.3
75°	78.5	98.1	179.5	210.3	535.6	644.9	678.6	709.4	740.3	745.9	737.5
77.5°	70.1	86.9	154.2	176.7	417.8	510.3	538.4	555.2	580.5	586.1	588.9
80°	58.9	75.7	120.6	137.4	302.8	375.8	395.4	409.4	431.8	431.8	437.4
82.5°	44.9	58.9	86.9	98.1	204.7	258.0	274.8	283.2	297.2	297.2	297.2
85°	28.0	36.5	56.1	64.5	123.4	157.0	168.2	171.1	182.3	185.1	185.1
87.5°	14.0	19.6	36.5	39.3	64.5	81.3	81.3	86.9	86.9	84.1	81.3
90°	14.5	26.1	37.8	40.7	63.8	94.8	110.3	98.1	73.6	55.1	55.1
92.5°	58.0	156.8	255.5	280.2	394.0	545.6	621.4	544.6	391.0	275.8	264.9
95°	139.4	320.0	500.7	545.9	969.3	1533.9	1816.2	1620.7	1229.7	936.5	903.2
97.5°	241.0	400.3	559.8	599.6	1305.7	2247.1	2717.8	2594.3	2347.1	2161.8	2098.5
100°	319.4	464.0	608.5	644.7	1428.1	2472.9	2995.2	3004.2	3022.3	3035.8	2960.5
102.5°	386.2	521.1	655.9	689.6	1484.3	2543.8	3073.6	3231.0	3545.9	3782.1	3717.6
105°	499.4	613.6	727.9	756.5	1525.9	2551.8	3064.8	3417.8	4123.7	4653.2	4618.5
107.5°	615.6	722.1	828.5	855.2	1533.7	2438.4	2890.7	3383.0	4367.6	5106.1	5114.5
110°	694.0	790.1	886.3	910.3	1522.0	2337.6	2745.4	3295.9	4396.7	5222.3	5258.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	770.9	862.5	954.1	977.0	1522.4	2249.7	2613.3	3176.7	4303.3	5148.3	5203.8
115°	887.0	971.5	1056.1	1077.2	1536.6	2148.9	2455.1	2997.8	4083.1	4897.1	4974.0
117.5°	1001.8	1078.6	1155.4	1174.6	1565.1	2085.8	2346.2	2836.0	3815.5	4550.1	4635.4
120°	1068.6	1140.8	1213.2	1231.2	1588.3	2064.6	2302.6	2750.2	3645.2	4316.4	4399.3
122.5°	1133.9	1206.8	1279.7	1297.9	1621.7	2053.5	2269.3	2672.2	3478.1	4082.6	4164.4
125°	1234.1	1300.5	1367.0	1383.6	1666.8	2044.2	2232.9	2575.2	3259.9	3773.3	3848.7
127.5°	1315.4	1382.5	1449.6	1466.4	1711.7	2038.9	2202.4	2496.3	3084.2	3525.1	3588.6
130°	1359.0	1431.2	1503.5	1521.5	1744.6	2042.1	2190.9	2452.5	2975.8	3368.3	3427.0
132.5°	1403.9	1476.2	1548.5	1566.6	1771.3	2044.2	2180.7	2414.9	2883.4	3234.7	3287.4
135°	1470.8	1536.6	1602.4	1618.8	1800.3	2042.3	2163.3	2359.5	2751.8	3046.0	3091.4
137.5°	1539.0	1604.1	1669.3	1685.6	1843.8	2054.9	2160.4	2326.2	2657.8	2906.6	2943.7
140°	1595.5	1655.6	1715.6	1730.6	1870.4	2056.9	2150.2	2293.4	2579.9	2794.8	2829.4
142.5°	1639.1	1694.6	1750.1	1764.0	1892.7	2064.4	2150.2	2276.0	2527.7	2716.4	2746.3
145°	1705.9	1754.3	1802.8	1814.8	1921.8	2064.4	2135.7	2238.6	2444.4	2598.8	2621.4
147.5°	1772.7	1819.8	1866.9	1878.7	1964.4	2078.6	2135.7	2216.7	2378.6	2500.1	2518.8
150°	1816.2	1858.8	1901.5	1912.1	1986.6	2086.0	2135.7	2204.1	2340.9	2443.4	2458.6
152.5°	1861.3	1893.5	1925.9	1933.9	2001.2	2090.8	2135.7	2194.1	2310.9	2398.5	2410.0
155°	1928.0	1951.9	1975.8	1981.8	2033.1	2101.5	2135.7	2182.2	2275.1	2344.7	2352.3
157.5°	1977.5	2000.6	2023.9	2029.7	2065.0	2112.2	2135.7	2171.8	2244.0	2298.3	2303.6
160°	2010.8	2028.9	2047.0	2051.5	2079.5	2117.0	2135.7	2166.6	2228.6	2275.1	2278.2
162.5°	2044.2	2057.8	2071.3	2074.7	2095.1	2122.2	2135.7	2161.9	2214.1	2253.3	2256.2
165°	2080.5	2092.7	2105.0	2108.0	2117.3	2129.5	2135.7	2154.4	2191.8	2219.8	2222.9
167.5°	2113.9	2119.7	2125.5	2126.9	2134.7	2145.1	2150.2	2162.4	2186.9	2205.3	2206.7
170°	2135.7	2141.5	2147.3	2148.7	2149.2	2149.8	2150.2	2162.4	2186.9	2205.3	2205.3
172.5°	2147.3	2148.6	2149.9	2150.2	2150.2	2150.2	2150.2	2159.9	2179.3	2193.8	2192.6
175°	2163.3	2163.3	2163.3	2163.3	2158.9	2153.1	2150.2	2156.4	2168.6	2177.8	2177.8
177.5°	2163.3	2163.3	2163.3	2163.3	2159.9	2155.3	2153.1	2158.0	2167.6	2174.9	2173.6
180°	2163.3	2163.3	2163.3	2163.3	2163.3	2163.3	2163.3	2163.3	2163.3	2163.3	2163.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	872.1	872.1
2.5°	931.0	925.4
5°	1197.5	1203.1
7.5°	1612.5	1609.7
10°	2005.0	2030.3
12.5°	2291.1	2296.7
15°	2464.9	2476.1
17.5°	2532.2	2535.0
20°	2535.0	2529.4
22.5°	2504.2	2498.6
25°	2467.7	2464.9
27.5°	2434.1	2436.9
30°	2420.0	2428.5
32.5°	2420.0	2434.1
35°	2425.7	2439.7
37.5°	2422.9	2439.7
40°	2411.6	2431.3
42.5°	2380.8	2394.8
45°	2333.1	2349.9
47.5°	2271.4	2282.6
50°	2192.9	2204.1
52.5°	2094.8	2097.6
55°	1977.0	1988.2
57.5°	1850.8	1853.6
60°	1710.6	1719.0
62.5°	1562.0	1562.0
65°	1405.0	1410.6
67.5°	1242.3	1256.3
70°	1076.9	1079.7
72.5°	914.1	914.1
75°	745.9	748.7
77.5°	586.1	586.1
80°	434.6	437.4
82.5°	300.0	305.6
85°	187.9	187.9
87.5°	86.9	78.5
90°	55.1	55.1
92.5°	221.0	177.1
95°	770.3	637.4
97.5°	1845.6	1592.6
100°	2659.1	2357.8
102.5°	3459.4	3201.4
105°	4479.8	4341.1
107.5°	5148.1	5181.6
110°	5403.0	5547.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5425.7	5647.7
115°	5281.8	5589.6
117.5°	4976.7	5318.1
120°	4730.9	5062.6
122.5°	4491.5	4818.7
125°	4150.0	4451.4
127.5°	3842.9	4097.1
130°	3661.9	3896.8
132.5°	3497.7	3708.0
135°	3272.6	3453.9
137.5°	3092.1	3240.5
140°	2968.3	3107.0
142.5°	2865.6	2985.0
145°	2711.7	2802.1
147.5°	2593.6	2668.5
150°	2519.3	2580.0
152.5°	2455.8	2501.6
155°	2382.7	2412.9
157.5°	2324.9	2346.2
160°	2290.4	2302.6
162.5°	2267.8	2279.4
165°	2235.2	2247.5
167.5°	2211.8	2216.9
170°	2205.3	2205.3
172.5°	2188.1	2183.6
175°	2177.8	2177.8
177.5°	2168.4	2163.3
180°	2163.3	2163.3



TEST NUMBER: P937929  
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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	2.60	3.34	3.68	4.43	5.93	15.79	16.53	16.88	17.62	19.12
	3H	3.29	3.96	4.39	5.06	6.58	17.62	18.29	18.72	19.39	20.91
	4H	3.58	4.22	4.69	5.32	6.84	18.27	18.90	19.37	20.00	21.52
	6H	3.83	4.41	4.94	5.52	7.05	18.70	19.28	19.81	20.38	21.92
	8H	3.89	4.45	5.01	5.57	7.10	18.81	19.37	19.94	20.49	22.02
	12H	3.91	4.44	5.03	5.55	7.10	18.88	19.41	20.01	20.52	22.08
4H	2H	9.80	10.44	10.92	11.54	13.06	16.05	16.68	17.16	17.78	19.30
	3H	11.36	11.89	12.48	13.02	14.55	18.09	18.62	19.21	19.75	21.28
	4H	11.45	11.94	12.58	13.05	14.61	18.85	19.34	19.98	20.46	22.01
	6H	11.45	11.87	12.59	13.01	14.56	19.39	19.81	20.52	20.95	22.49
	8H	11.43	11.82	12.56	12.95	14.51	19.55	19.94	20.68	21.07	22.64
	12H	11.38	11.73	12.53	12.88	14.44	19.64	20.00	20.79	21.14	22.71
8H	4H	12.89	13.28	14.02	14.41	15.97	18.90	19.29	20.03	20.43	21.99
	6H	13.12	13.45	14.28	14.62	16.18	19.53	19.85	20.68	21.03	22.59
	8H	13.14	13.42	14.30	14.58	16.16	19.75	20.03	20.91	21.19	22.77
	12H	13.10	13.35	14.27	14.50	16.12	19.89	20.14	21.06	21.29	22.91
12H	4H	13.03	13.38	14.18	14.53	16.09	18.85	19.20	20.00	20.35	21.92
	6H	13.38	13.67	14.54	14.82	16.40	19.51	19.80	20.67	20.95	22.53
	8H	13.45	13.70	14.61	14.85	16.46	19.74	19.99	20.90	21.14	22.75