

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: P938181

Luminaire Tested: SQ4-FB-125U-125D-B2750-1D-UNV-W2A-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938181
REPORT IS A COMBINATION OF REPORTS P933592 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-125D-B2750-1D-UNV-W2A-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

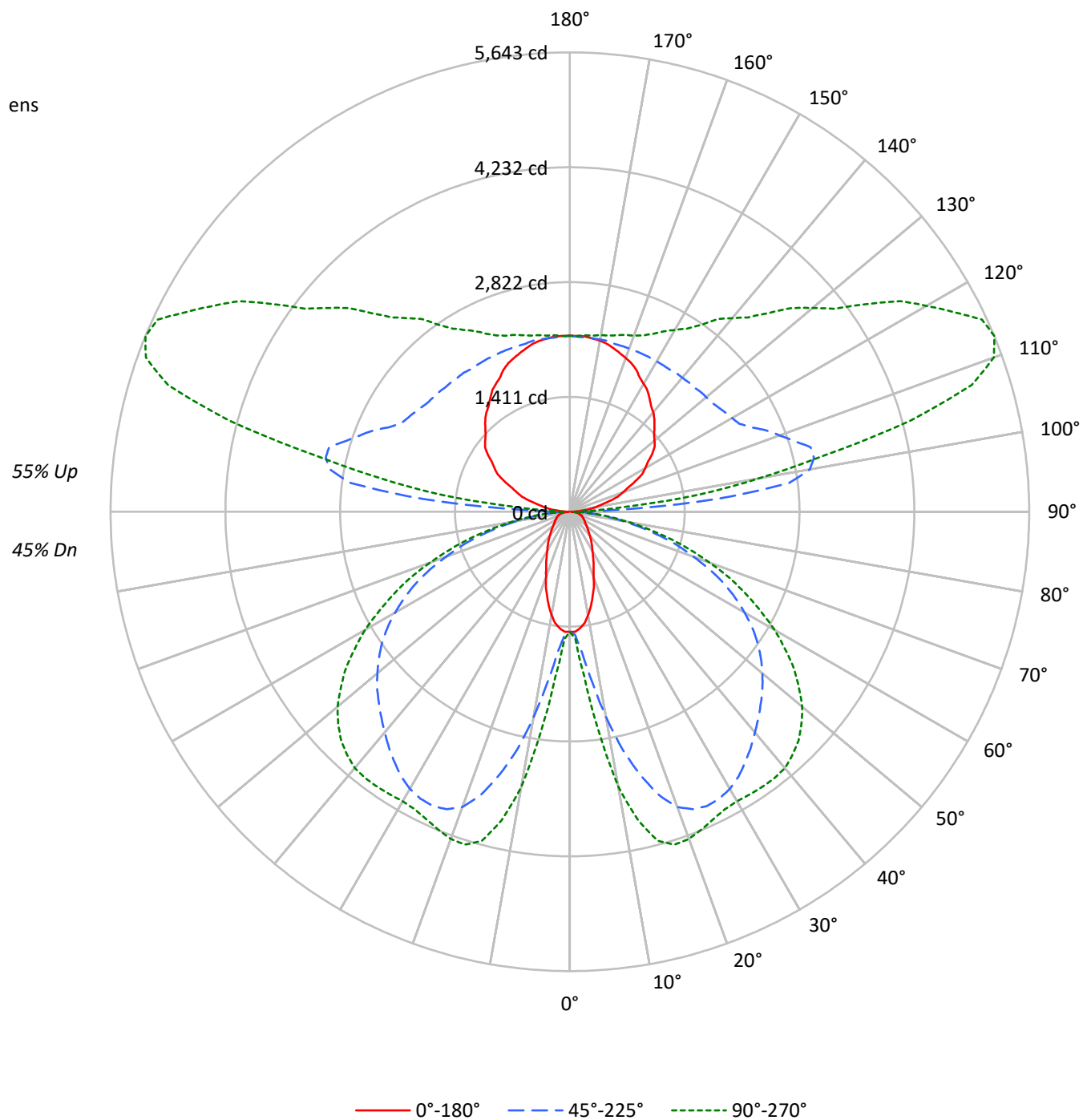
Lumens per Lamp: N/A
Luminaire Lumens: 25429.1 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 225.6
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4561	4561	4561
5°	4458	5273	6131
10°	4045	7688	10164
15°	3439	10047	12273
20°	2801	11646	12508
25°	2337	12190	12254
30°	1972	12270	12231
35°	1745	12069	12547
40°	1521	11808	12874
45°	1378	11618	12924
50°	1265	11447	12710
55°	1213	11196	12147
60°	1243	10709	11257
65°	1296	9966	10035
70°	1383	8698	8477
75°	1538	7098	6616
80°	1694	4929	4458
85°	1536	2620	2282

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12924 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.8	0.8
10°-20°	845.4	3.3
20°-30°	1478.8	5.8
30°-40°	1903.6	7.5
40°-50°	2126.3	8.4
50°-60°	2036.5	8.0
60°-70°	1613.9	6.3
70°-80°	949.0	3.7
80°-90°	271.9	1.1
90°-100°	1053.7	4.1
100°-110°	2770.2	10.9
110°-120°	2872.4	11.3
120°-130°	2304.0	9.1
130°-140°	1807.8	7.1
140°-150°	1387.6	5.5
150°-160°	999.3	3.9
160°-170°	611.4	2.4
170°-180°	206.6	0.8
0°-30°	2514.9	9.9
0°-40°	4418.6	17.4
0°-60°	8581.3	33.7
0°-90°	11416.1	44.9
90°-120°	6696.3	26.3
90°-150°	12195.7	48.0
90°-180°	14013.0	55.1
0°-180°	25429.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1437	1541	1736	1963	2034	133
15°	1076	1987	3348	4059	4187	300
25°	688	2252	3988	4163	4168	317
35°	465	2153	3755	3969	4125	290
45°	318	1716	3319	3803	3974	246
55°	228	1090	2817	3272	3362	207
65°	180	578	2091	2352	2385	179
75°	133	356	1148	1261	1266	139
85°	47	109	284	313	318	50
90°	14	41	110	55	55	15
95°	139	546	1815	936	637	155
105°	499	756	3062	4650	4338	529
115°	886	1076	2453	4893	5585	876
125°	1233	1383	2231	3770	4448	1095
135°	1470	1618	2162	3044	3451	1137
145°	1705	1814	2134	2597	2800	1068
155°	1927	1980	2134	2343	2411	885
165°	2079	2106	2134	2218	2246	587
175°	2162	2162	2149	2176	2176	205
180°	2162	2162	2162	2162	2162	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7	1474.7
2.5°	1474.7	1474.7	1484.1	1488.9	1498.3	1503.1	1512.6	1522.0	1550.5	1555.3	1564.7
5°	1436.7	1455.6	1517.3	1541.0	1607.4	1697.5	1735.5	1797.1	1925.1	1963.1	1986.7
7.5°	1379.8	1422.5	1574.3	1612.2	1778.1	2015.2	2114.8	2247.6	2451.5	2551.0	2631.6
10°	1289.8	1379.8	1650.1	1740.1	2010.4	2370.8	2555.7	2740.6	3048.9	3186.3	3238.6
12.5°	1190.2	1337.1	1730.7	1854.0	2242.8	2769.1	2992.0	3195.9	3546.8	3731.7	3760.1
15°	1076.3	1275.5	1806.5	1986.7	2489.4	3101.1	3347.5	3598.9	3926.1	4058.9	4092.0
17.5°	976.8	1228.1	1877.7	2067.3	2679.0	3399.8	3651.1	3859.7	4125.2	4215.3	4239.1
20°	853.5	1152.2	1925.1	2171.6	2878.2	3617.8	3859.7	4020.9	4201.1	4258.0	4267.4
22.5°	763.4	1071.6	1953.6	2209.6	3010.9	3750.7	3954.6	4082.5	4205.8	4224.8	4229.5
25°	687.5	981.5	1948.8	2252.2	3124.7	3831.3	3987.7	4082.5	4153.7	4163.1	4163.1
27.5°	616.4	882.0	1929.8	2261.8	3210.1	3850.2	3973.5	4039.8	4073.1	4092.0	4092.0
30°	554.8	787.1	1882.4	2242.8	3248.0	3831.3	3930.8	3964.0	3997.2	4025.6	4039.8
32.5°	507.3	697.0	1811.3	2204.9	3252.7	3783.8	3855.0	3874.0	3921.3	3987.7	4011.4
35°	464.7	606.9	1730.7	2152.7	3224.4	3708.0	3755.3	3774.4	3869.2	3968.8	4001.9
37.5°	422.0	540.5	1626.4	2062.6	3181.7	3617.8	3651.1	3684.3	3831.3	3949.8	3987.7
40°	379.3	483.6	1503.1	1963.1	3115.3	3508.9	3537.2	3589.5	3783.8	3921.3	3959.2
42.5°	346.1	436.3	1370.4	1858.8	3029.9	3385.6	3428.2	3504.1	3726.9	3874.0	3916.6
45°	317.7	388.8	1228.1	1716.5	2920.8	3257.5	3319.2	3423.5	3660.5	3802.8	3840.7
47.5°	289.3	355.7	1081.1	1569.5	2802.3	3129.5	3210.1	3328.6	3570.5	3708.0	3741.1
50°	265.5	322.4	934.1	1413.0	2674.3	2992.0	3086.8	3210.1	3456.6	3584.7	3627.4
52.5°	246.6	294.0	796.6	1256.5	2527.3	2849.7	2958.8	3086.8	3319.2	3442.4	3470.8
55°	227.6	270.3	678.1	1090.5	2375.5	2698.0	2816.6	2939.9	3167.4	3271.7	3290.7
57.5°	218.1	251.3	578.5	934.1	2214.3	2527.3	2660.0	2773.9	2987.2	3067.8	3086.8
60°	203.9	237.0	502.6	801.4	2038.9	2366.1	2479.9	2593.7	2773.9	2840.2	2854.5
62.5°	189.7	227.6	445.7	673.3	1858.8	2176.4	2290.2	2394.5	2546.3	2593.7	2612.7
65°	180.2	218.1	403.0	578.5	1673.8	1977.3	2091.0	2181.2	2304.5	2351.8	2361.3
67.5°	170.7	208.7	369.9	497.9	1488.9	1778.1	1863.4	1948.8	2043.7	2091.0	2095.8
70°	156.4	199.1	341.4	440.9	1299.2	1550.5	1621.6	1711.7	1787.6	1811.3	1825.5
72.5°	147.0	184.9	322.4	398.3	1104.8	1332.4	1398.8	1451.0	1517.3	1541.0	1541.0
75°	132.7	166.0	303.5	355.7	905.6	1090.5	1147.5	1199.6	1251.7	1261.3	1247.1
77.5°	118.5	147.0	260.8	298.7	706.5	863.0	910.4	938.9	981.5	991.0	995.7
80°	99.6	128.1	203.9	232.4	512.1	635.4	668.6	692.3	730.2	730.2	739.7
82.5°	75.8	99.6	147.0	166.0	346.1	436.3	464.7	478.9	502.6	502.6	502.6
85°	47.4	61.6	94.8	109.1	208.7	265.5	284.5	289.3	308.2	313.0	313.0
87.5°	23.7	33.2	61.6	66.4	109.1	137.5	137.5	147.0	147.0	142.2	137.5
90°	14.5	26.1	37.7	40.6	63.8	94.7	110.2	98.0	73.5	55.1	55.1
92.5°	58.0	156.6	255.4	280.0	393.7	545.2	620.9	544.1	390.7	275.6	264.7
95°	139.3	319.8	500.3	545.5	968.6	1532.8	1814.9	1619.5	1228.8	935.8	902.5
97.5°	240.8	400.0	559.4	599.2	1304.7	2245.4	2715.8	2592.3	2345.4	2160.2	2096.9
100°	319.1	463.6	608.0	644.2	1427.1	2471.0	2992.9	3002.0	3020.0	3033.5	2958.3
102.5°	385.9	520.7	655.4	689.1	1483.2	2541.9	3071.3	3228.6	3543.2	3779.2	3714.8
105°	499.0	613.2	727.3	755.9	1524.8	2549.9	3062.5	3415.2	4120.6	4649.6	4615.0
107.5°	615.1	721.5	827.9	854.5	1532.5	2436.5	2888.5	3380.4	4364.3	5102.3	5110.7
110°	693.5	789.5	885.6	909.6	1520.8	2335.8	2743.3	3293.4	4393.3	5218.4	5254.5

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	770.4	861.9	953.4	976.3	1521.3	2248.0	2611.4	3174.3	4300.0	5144.4	5199.9
115°	886.4	970.8	1055.3	1076.4	1535.4	2147.3	2453.2	2995.5	4080.0	4893.4	4970.3
117.5°	1001.1	1077.7	1154.5	1173.7	1563.9	2084.2	2344.4	2833.8	3812.6	4546.6	4631.9
120°	1067.7	1139.9	1212.2	1230.3	1587.1	2063.0	2300.9	2748.1	3642.4	4313.1	4396.0
122.5°	1133.0	1205.9	1278.7	1297.0	1620.5	2051.9	2267.6	2670.2	3475.5	4079.5	4161.3
125°	1233.2	1299.6	1366.0	1382.6	1665.5	2042.7	2231.2	2573.3	3257.4	3770.5	3845.7
127.5°	1314.4	1381.5	1448.5	1465.3	1710.4	2037.3	2200.8	2494.4	3081.8	3522.4	3585.9
130°	1357.9	1430.1	1502.3	1520.4	1743.3	2040.6	2189.2	2450.6	2973.6	3365.8	3424.4
132.5°	1402.9	1475.1	1547.4	1565.4	1769.9	2042.7	2179.0	2413.1	2881.2	3232.3	3284.9
135°	1469.6	1535.4	1601.2	1617.6	1799.0	2040.8	2161.6	2357.7	2749.7	3043.7	3089.0
137.5°	1537.8	1602.9	1668.0	1684.3	1842.4	2053.3	2158.8	2324.4	2655.8	2904.4	2941.4
140°	1594.3	1654.3	1714.3	1729.3	1869.0	2055.4	2148.6	2291.7	2577.9	2792.7	2827.3
142.5°	1637.9	1693.3	1748.8	1762.6	1891.3	2062.8	2148.6	2274.3	2525.8	2714.4	2744.2
145°	1704.6	1753.0	1801.4	1813.5	1920.3	2062.8	2134.1	2236.9	2442.6	2596.8	2619.4
147.5°	1771.3	1818.4	1865.5	1877.2	1962.9	2077.0	2134.1	2215.0	2376.8	2498.2	2516.8
150°	1814.9	1857.4	1900.0	1910.7	1985.1	2084.4	2134.1	2202.5	2339.1	2441.6	2456.7
152.5°	1859.9	1892.1	1924.4	1932.4	1999.7	2089.3	2134.1	2192.5	2309.1	2396.6	2408.1
155°	1926.6	1950.5	1974.3	1980.3	2031.5	2099.9	2134.1	2180.5	2273.4	2342.9	2350.5
157.5°	1976.0	1999.1	2022.4	2028.2	2063.5	2110.6	2134.1	2170.1	2242.3	2296.5	2301.8
160°	2009.3	2027.3	2045.5	2049.9	2078.0	2115.4	2134.1	2165.0	2226.9	2273.4	2276.4
162.5°	2042.7	2056.2	2069.7	2073.1	2093.5	2120.6	2134.1	2160.2	2212.5	2251.6	2254.5
165°	2078.9	2091.1	2103.4	2106.5	2115.7	2127.9	2134.1	2152.8	2190.1	2218.2	2221.2
167.5°	2112.3	2118.1	2123.9	2125.3	2133.1	2143.4	2148.6	2160.8	2185.3	2203.7	2205.0
170°	2134.1	2139.9	2145.7	2147.1	2147.5	2148.2	2148.6	2160.8	2185.3	2203.7	2203.7
172.5°	2145.7	2147.0	2148.3	2148.6	2148.6	2148.6	2148.6	2158.3	2177.6	2192.1	2191.0
175°	2161.6	2161.6	2161.6	2161.6	2157.3	2151.5	2148.6	2154.7	2167.0	2176.1	2176.1
177.5°	2161.6	2161.6	2161.6	2161.6	2158.3	2153.7	2151.5	2156.3	2165.9	2173.2	2171.9
180°	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6	2161.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1474.7	1474.7
2.5°	1574.3	1564.7
5°	2024.7	2034.2
7.5°	2726.4	2721.7
10°	3390.2	3432.9
12.5°	3874.0	3883.4
15°	4167.9	4186.8
17.5°	4281.7	4286.4
20°	4286.4	4277.0
22.5°	4234.3	4224.8
25°	4172.6	4167.9
27.5°	4115.8	4120.5
30°	4092.0	4106.2
32.5°	4092.0	4115.8
35°	4101.5	4125.2
37.5°	4096.8	4125.2
40°	4077.8	4111.0
42.5°	4025.6	4049.4
45°	3945.0	3973.5
47.5°	3840.7	3859.7
50°	3708.0	3726.9
52.5°	3542.0	3546.8
55°	3342.9	3361.8
57.5°	3129.5	3134.2
60°	2892.4	2906.6
62.5°	2641.1	2641.1
65°	2375.5	2385.1
67.5°	2100.6	2124.3
70°	1820.8	1825.5
72.5°	1545.8	1545.8
75°	1261.3	1266.0
77.5°	991.0	991.0
80°	735.0	739.7
82.5°	507.3	516.9
85°	317.7	317.7
87.5°	147.0	132.7
90°	55.1	55.1
92.5°	220.8	177.0
95°	769.7	636.9
97.5°	1844.2	1591.4
100°	2657.1	2356.0
102.5°	3456.8	3199.0
105°	4476.4	4337.8
107.5°	5144.2	5177.7
110°	5398.9	5543.3

TEST NUMBER: P938181

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5421.6	5643.4
115°	5277.8	5585.4
117.5°	4973.0	5314.1
120°	4727.3	5058.7
122.5°	4488.2	4815.1
125°	4146.9	4448.0
127.5°	3840.0	4094.0
130°	3659.1	3893.8
132.5°	3495.0	3705.2
135°	3270.1	3451.3
137.5°	3089.8	3238.1
140°	2966.0	3104.6
142.5°	2863.5	2982.7
145°	2709.6	2799.9
147.5°	2591.7	2666.5
150°	2517.4	2578.0
152.5°	2453.9	2499.7
155°	2380.9	2411.1
157.5°	2323.1	2344.4
160°	2288.7	2300.9
162.5°	2266.1	2277.7
165°	2233.5	2245.8
167.5°	2210.1	2215.3
170°	2203.7	2203.7
172.5°	2186.4	2181.9
175°	2176.1	2176.1
177.5°	2166.8	2161.6
180°	2161.6	2161.6

TEST NUMBER: P938181

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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	5.80	6.65	6.79	7.66	9.00	18.99	19.84	19.98	20.85	22.19
	3H	6.50	7.27	7.51	8.28	9.64	20.83	21.60	21.84	22.62	23.98
	4H	6.80	7.52	7.82	8.55	9.91	21.48	22.21	22.50	23.23	24.60
	6H	7.05	7.72	8.08	8.74	10.12	21.92	22.58	22.94	23.61	24.99
	8H	7.12	7.75	8.15	8.80	10.17	22.04	22.68	23.07	23.72	25.09
	12H	7.13	7.74	8.17	8.78	10.18	22.11	22.72	23.15	23.75	25.15
4H	2H	13.02	13.74	14.04	14.77	16.13	19.26	19.99	20.28	21.01	22.38
	3H	14.59	15.19	15.62	16.24	17.62	21.31	21.92	22.34	22.97	24.35
	4H	14.68	15.24	15.72	16.28	17.68	22.08	22.64	23.12	23.68	25.08
	6H	14.69	15.17	15.74	16.23	17.63	22.63	23.10	23.67	24.17	25.57
	8H	14.67	15.11	15.72	16.17	17.59	22.79	23.24	23.84	24.30	25.71
	12H	14.62	15.03	15.69	16.10	17.52	22.89	23.29	23.95	24.36	25.78
8H	4H	16.13	16.58	17.18	17.63	19.05	22.14	22.59	23.19	23.65	25.06
	6H	16.37	16.74	17.44	17.84	19.25	22.77	23.15	23.85	24.24	25.66
	8H	16.39	16.71	17.47	17.80	19.23	23.00	23.32	24.08	24.41	25.84
	12H	16.35	16.64	17.44	17.72	19.19	23.14	23.43	24.23	24.51	25.98
12H	4H	16.27	16.68	17.34	17.75	19.17	22.09	22.50	23.16	23.57	24.99
	6H	16.63	16.96	17.71	18.04	19.47	22.76	23.08	23.84	24.17	25.60
	8H	16.70	16.99	17.78	18.06	19.53	22.99	23.28	24.08	24.36	25.83