

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: P938078

Luminaire Tested: SQ4-FB-125U-100D-B2750-1D-UNV-W2A-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938078
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-100D-B2750-1D-UNV-W2A-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

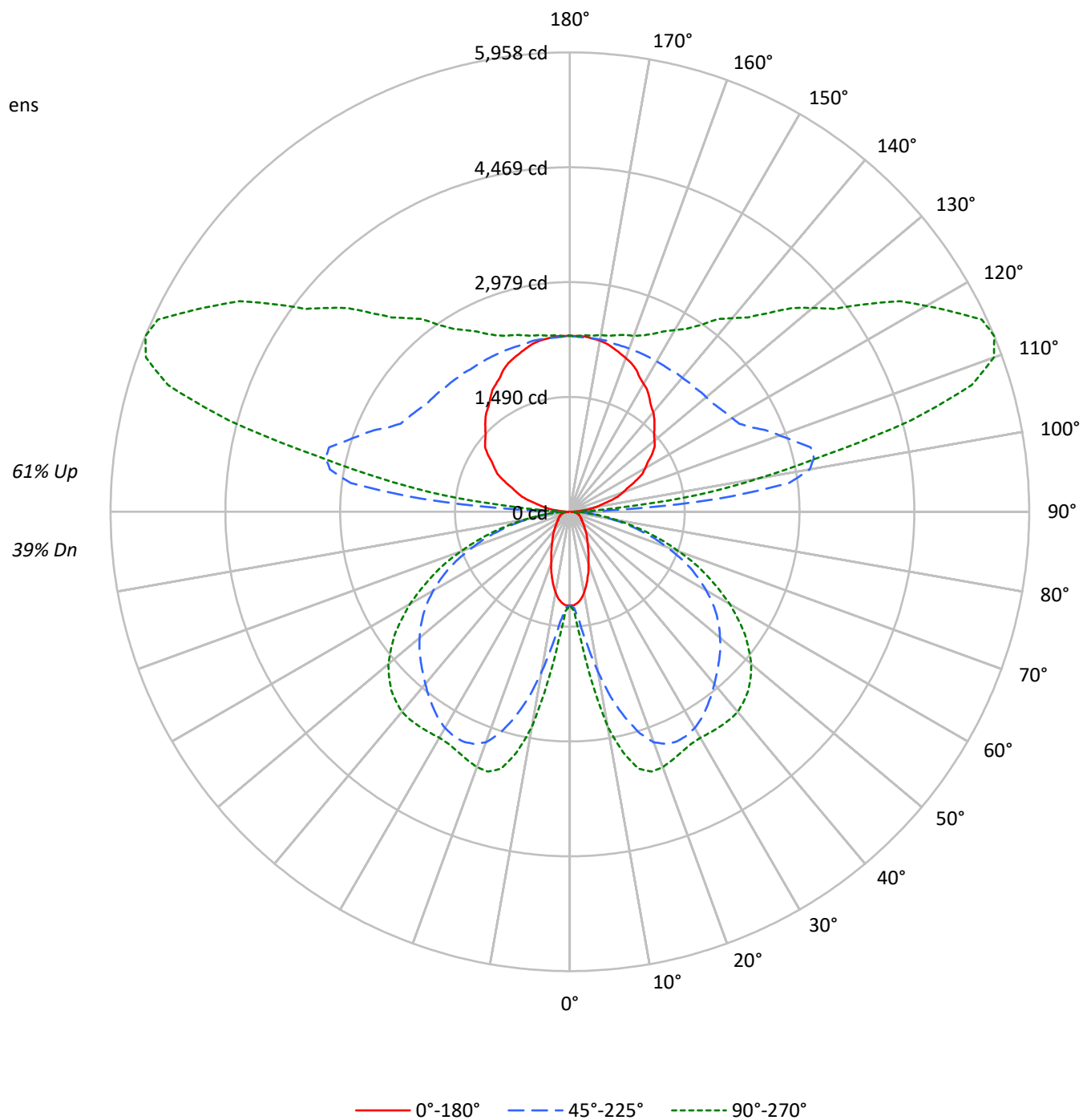
Lumens per Lamp: N/A
Luminaire Lumens: 24204.3 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 193.2
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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CATALOG NUMBER: SQ4-FB-125U-100D-B2750-1D-UNV-W2A-W-12-3000K

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	50	30	10
RCR																				
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46			39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38			32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31			26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26			21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22			18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16			13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14			11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13			10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11			9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3759	3759	3759
5°	3674	4346	5053
10°	3334	6337	8377
15°	2834	8281	10116
20°	2308	9599	10309
25°	1927	10047	10100
30°	1625	10113	10081
35°	1438	9948	10341
40°	1254	9732	10611
45°	1136	9575	10652
50°	1043	9435	10476
55°	1000	9228	10012
60°	1024	8827	9279
65°	1068	8214	8271
70°	1141	7169	6987
75°	1268	5850	5453
80°	1395	4063	3674
85°	1264	2159	1881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10652 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.2	0.6
10°-20°	696.8	2.9
20°-30°	1218.8	5.0
30°-40°	1569.0	6.5
40°-50°	1752.5	7.2
50°-60°	1678.5	6.9
60°-70°	1330.2	5.5
70°-80°	782.2	3.2
80°-90°	226.0	0.9
90°-100°	1112.3	4.6
100°-110°	2924.4	12.1
110°-120°	3032.3	12.5
120°-130°	2432.3	10.0
130°-140°	1908.5	7.9
140°-150°	1464.8	6.1
150°-160°	1054.9	4.4
160°-170°	645.5	2.7
170°-180°	218.1	0.9
0°-30°	2072.8	8.6
0°-40°	3641.8	15.0
0°-60°	7072.8	29.2
0°-90°	9411.2	38.9
90°-120°	7069.1	29.2
90°-150°	12874.7	53.2
90°-180°	14793.0	61.1
0°-180°	24204.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1184	1270	1430	1618	1677	109
15°	887	1638	2759	3345	3451	247
25°	567	1856	3287	3431	3435	261
35°	383	1774	3095	3271	3400	239
45°	262	1415	2736	3134	3275	203
55°	188	899	2321	2697	2771	171
65°	148	477	1723	1938	1966	147
75°	109	293	946	1040	1044	115
85°	39	90	234	258	262	41
90°	15	43	116	58	58	15
95°	147	576	1916	988	672	163
105°	527	798	3233	4908	4579	559
115°	936	1136	2590	5166	5896	924
125°	1302	1460	2356	3980	4696	1156
135°	1552	1708	2282	3213	3644	1200
145°	1800	1914	2253	2741	2956	1127
155°	2034	2090	2253	2473	2545	935
165°	2195	2224	2253	2342	2371	619
175°	2282	2282	2268	2297	2297	217
180°	2282	2282	2282	2282	2282	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4	1215.4
2.5°	1215.4	1215.4	1223.2	1227.2	1235.0	1238.9	1246.7	1254.5	1278.0	1281.9	1289.7
5°	1184.2	1199.8	1250.6	1270.2	1324.9	1399.1	1430.4	1481.2	1586.7	1617.9	1637.5
7.5°	1137.3	1172.5	1297.5	1328.7	1465.5	1660.9	1743.1	1852.4	2020.5	2102.5	2169.0
10°	1063.0	1137.3	1360.0	1434.2	1657.1	1954.1	2106.5	2258.9	2512.9	2626.2	2669.2
12.5°	981.0	1102.1	1426.4	1528.1	1848.6	2282.3	2466.0	2634.1	2923.3	3075.7	3099.1
15°	887.1	1051.3	1489.0	1637.5	2051.8	2555.9	2759.1	2966.3	3236.0	3345.3	3372.7
17.5°	805.1	1012.2	1547.6	1703.9	2208.0	2802.1	3009.3	3181.2	3400.0	3474.3	3493.9
20°	703.4	949.7	1586.7	1789.9	2372.2	2981.9	3181.2	3314.0	3462.5	3509.5	3517.3
22.5°	629.2	883.3	1610.1	1821.1	2481.7	3091.3	3259.3	3364.9	3466.5	3482.2	3486.0
25°	566.7	809.0	1606.2	1856.3	2575.4	3157.8	3286.7	3364.9	3423.5	3431.3	3431.3
27.5°	508.1	726.9	1590.6	1864.1	2645.8	3173.3	3275.0	3329.7	3357.0	3372.7	3372.7
30°	457.2	648.8	1551.5	1848.6	2677.1	3157.8	3239.8	3267.2	3294.5	3318.0	3329.7
32.5°	418.2	574.4	1492.9	1817.3	2680.9	3118.7	3177.3	3193.0	3232.0	3286.7	3306.3
35°	383.0	500.2	1426.4	1774.3	2657.5	3056.1	3095.3	3110.8	3189.0	3271.1	3298.5
37.5°	347.9	445.6	1340.5	1700.1	2622.4	2981.9	3009.3	3036.6	3157.8	3255.5	3286.7
40°	312.7	398.6	1238.9	1617.9	2567.6	2892.0	2915.4	2958.4	3118.7	3232.0	3263.3
42.5°	285.2	359.6	1129.5	1531.9	2497.2	2790.4	2825.6	2888.1	3071.8	3193.0	3228.1
45°	261.9	320.4	1012.2	1414.7	2407.4	2684.9	2735.7	2821.6	3017.1	3134.3	3165.6
47.5°	238.4	293.1	891.0	1293.6	2309.7	2579.4	2645.8	2743.4	2942.8	3056.1	3083.5
50°	218.9	265.7	769.9	1164.7	2204.2	2466.0	2544.2	2645.8	2849.0	2954.5	2989.7
52.5°	203.2	242.3	656.6	1035.7	2083.0	2348.8	2438.7	2544.2	2735.7	2837.3	2860.8
55°	187.6	222.7	558.9	898.8	1958.0	2223.7	2321.4	2423.0	2610.6	2696.6	2712.2
57.5°	179.7	207.2	476.8	769.9	1825.1	2083.0	2192.5	2286.2	2462.1	2528.5	2544.2
60°	168.0	195.4	414.2	660.4	1680.4	1950.1	2044.0	2137.7	2286.2	2341.0	2352.7
62.5°	156.3	187.6	367.4	554.9	1531.9	1793.8	1887.6	1973.6	2098.7	2137.7	2153.3
65°	148.5	179.7	332.2	476.8	1379.6	1629.7	1723.4	1797.8	1899.3	1938.4	1946.3
67.5°	140.7	172.0	304.9	410.4	1227.2	1465.5	1535.9	1606.2	1684.4	1723.4	1727.4
70°	129.0	164.2	281.4	363.4	1070.8	1278.0	1336.6	1410.9	1473.4	1492.9	1504.6
72.5°	121.2	152.4	265.7	328.2	910.6	1098.2	1152.9	1195.9	1250.6	1270.2	1270.2
75°	109.4	136.8	250.1	293.1	746.4	898.8	945.8	988.8	1031.8	1039.5	1027.8
77.5°	97.7	121.2	214.9	246.2	582.3	711.3	750.3	773.8	809.0	816.8	820.7
80°	82.0	105.5	168.0	191.5	422.1	523.7	551.1	570.6	601.9	601.9	609.6
82.5°	62.5	82.0	121.2	136.8	285.2	359.6	383.0	394.7	414.2	414.2	414.2
85°	39.0	50.8	78.2	89.9	172.0	218.9	234.5	238.4	254.0	257.9	257.9
87.5°	19.5	27.3	50.8	54.7	89.9	113.3	113.3	121.2	121.2	117.2	113.3
90°	15.3	27.5	39.8	42.9	67.3	100.0	116.3	103.4	77.6	58.2	58.2
92.5°	61.2	165.4	269.6	295.6	415.6	575.5	655.5	574.4	412.4	291.0	279.4
95°	147.0	337.6	528.2	575.8	1022.5	1618.1	1915.9	1709.6	1297.2	987.9	952.8
97.5°	254.2	422.3	590.5	632.5	1377.3	2370.4	2867.0	2736.6	2475.9	2280.4	2213.7
100°	336.9	489.5	641.9	680.0	1506.5	2608.6	3159.5	3169.1	3188.1	3202.4	3123.0
102.5°	407.4	549.7	691.9	727.5	1565.8	2683.4	3242.3	3408.3	3740.5	3989.7	3921.6
105°	526.8	647.3	767.8	798.0	1609.6	2691.9	3233.0	3605.3	4350.0	4908.5	4871.9
107.5°	649.4	761.7	874.0	902.1	1617.8	2572.2	3049.3	3568.6	4607.3	5386.3	5395.2
110°	732.1	833.5	934.9	960.3	1605.5	2465.9	2896.1	3476.7	4637.9	5508.9	5547.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	813.3	909.9	1006.5	1030.7	1606.0	2373.2	2756.8	3351.0	4539.4	5430.8	5489.4
115°	935.7	1024.8	1114.1	1136.4	1620.9	2266.8	2589.8	3162.3	4307.1	5165.9	5247.0
117.5°	1056.8	1137.7	1218.8	1239.0	1651.0	2200.3	2475.0	2991.6	4024.9	4799.7	4889.8
120°	1127.2	1203.4	1279.7	1298.8	1675.5	2177.9	2429.0	2901.1	3845.2	4553.2	4640.7
122.5°	1196.1	1273.0	1349.9	1369.2	1710.7	2166.1	2393.8	2818.9	3669.0	4306.7	4392.9
125°	1301.8	1371.9	1442.0	1459.6	1758.2	2156.4	2355.5	2716.5	3438.8	3980.4	4059.9
127.5°	1387.6	1458.4	1529.2	1546.8	1805.7	2150.8	2323.3	2633.3	3253.4	3718.5	3785.5
130°	1433.5	1509.8	1586.0	1605.0	1840.4	2154.2	2311.1	2587.1	3139.1	3553.1	3615.1
132.5°	1481.0	1557.2	1633.5	1652.5	1868.5	2156.4	2300.3	2547.4	3041.6	3412.3	3467.8
135°	1551.5	1620.9	1690.3	1707.7	1899.1	2154.4	2282.0	2489.0	2902.8	3213.2	3261.0
137.5°	1623.4	1692.2	1760.9	1778.1	1945.0	2167.6	2278.9	2453.9	2803.7	3066.1	3105.2
140°	1683.1	1746.4	1809.7	1825.6	1973.1	2169.8	2268.2	2419.2	2721.5	2948.1	2984.7
142.5°	1729.0	1787.6	1846.2	1860.8	1996.6	2177.7	2268.2	2400.9	2666.4	2865.5	2897.0
145°	1799.5	1850.6	1901.7	1914.4	2027.2	2177.7	2252.9	2361.5	2578.6	2741.4	2765.2
147.5°	1869.9	1919.6	1969.3	1981.8	2072.2	2192.7	2252.9	2338.3	2509.2	2637.3	2657.0
150°	1915.9	1960.9	2005.8	2017.1	2095.6	2200.5	2252.9	2325.1	2469.3	2577.5	2593.5
152.5°	1963.4	1997.4	2031.6	2040.0	2111.0	2205.6	2252.9	2314.5	2437.7	2530.1	2542.2
155°	2033.8	2059.1	2084.2	2090.5	2144.6	2216.8	2252.9	2301.9	2399.9	2473.4	2481.4
157.5°	2086.0	2110.4	2135.0	2141.1	2178.4	2228.1	2252.9	2291.0	2367.2	2424.4	2430.0
160°	2121.2	2140.2	2159.3	2164.1	2193.7	2233.2	2252.9	2285.5	2350.9	2399.9	2403.2
162.5°	2156.4	2170.7	2185.0	2188.5	2210.0	2238.6	2252.9	2280.5	2335.6	2377.0	2380.0
165°	2194.6	2207.6	2220.5	2223.7	2233.5	2246.4	2252.9	2272.6	2312.1	2341.7	2344.9
167.5°	2229.9	2236.1	2242.2	2243.6	2251.8	2262.8	2268.2	2281.1	2306.9	2326.4	2327.7
170°	2252.9	2259.0	2265.1	2266.6	2267.1	2267.8	2268.2	2281.1	2306.9	2326.4	2326.4
172.5°	2265.1	2266.5	2267.9	2268.2	2268.2	2268.2	2268.2	2278.4	2298.9	2314.1	2313.0
175°	2282.0	2282.0	2282.0	2282.0	2277.4	2271.3	2268.2	2274.7	2287.6	2297.3	2297.3
177.5°	2282.0	2282.0	2282.0	2282.0	2278.4	2273.6	2271.3	2276.4	2286.5	2294.2	2292.8
180°	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1215.4	1215.4
2.5°	1297.5	1289.7
5°	1668.8	1676.6
7.5°	2247.2	2243.2
10°	2794.3	2829.4
12.5°	3193.0	3200.8
15°	3435.2	3450.9
17.5°	3529.0	3532.9
20°	3532.9	3525.1
22.5°	3489.9	3482.2
25°	3439.2	3435.2
27.5°	3392.2	3396.2
30°	3372.7	3384.4
32.5°	3372.7	3392.2
35°	3380.5	3400.0
37.5°	3376.6	3400.0
40°	3361.0	3388.3
42.5°	3318.0	3337.5
45°	3251.5	3275.0
47.5°	3165.6	3181.2
50°	3056.1	3071.8
52.5°	2919.3	2923.3
55°	2755.2	2770.9
57.5°	2579.4	2583.2
60°	2384.0	2395.7
62.5°	2176.8	2176.8
65°	1958.0	1965.8
67.5°	1731.3	1750.8
70°	1500.7	1504.6
72.5°	1274.0	1274.0
75°	1039.5	1043.5
77.5°	816.8	816.8
80°	605.8	609.6
82.5°	418.2	426.0
85°	261.9	261.9
87.5°	121.2	109.4
90°	58.2	58.2
92.5°	233.1	186.8
95°	812.6	672.4
97.5°	1946.9	1680.0
100°	2805.1	2487.2
102.5°	3649.3	3377.0
105°	4725.6	4579.3
107.5°	5430.6	5466.0
110°	5699.5	5851.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5723.4	5957.6
115°	5571.7	5896.4
117.5°	5249.9	5609.9
120°	4990.5	5340.4
122.5°	4738.0	5083.1
125°	4377.7	4695.6
127.5°	4053.7	4321.9
130°	3862.9	4110.6
132.5°	3689.6	3911.5
135°	3452.2	3643.5
137.5°	3261.8	3418.4
140°	3131.1	3277.5
142.5°	3022.9	3148.8
145°	2860.5	2955.8
147.5°	2736.0	2814.9
150°	2657.6	2721.6
152.5°	2590.5	2638.8
155°	2513.4	2545.4
157.5°	2452.5	2475.0
160°	2416.1	2429.0
162.5°	2392.2	2404.5
165°	2357.8	2370.8
167.5°	2333.2	2338.6
170°	2326.4	2326.4
172.5°	2308.1	2303.4
175°	2297.3	2297.3
177.5°	2287.4	2282.0
180°	2282.0	2282.0

TEST NUMBER: P938078

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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	4.50	5.30	5.54	6.35	7.77	17.69	18.49	18.73	19.54	20.96
	3H	5.20	5.92	6.25	6.98	8.41	19.53	20.25	20.58	21.31	22.74
	4H	5.50	6.18	6.56	7.24	8.68	20.18	20.86	21.24	21.92	23.36
	6H	5.74	6.37	6.81	7.43	8.89	20.61	21.24	21.68	22.30	23.76
	8H	5.81	6.41	6.88	7.49	8.94	20.73	21.33	21.81	22.41	23.86
	12H	5.82	6.39	6.91	7.47	8.94	20.80	21.37	21.88	22.44	23.92
4H	2H	11.72	12.40	12.78	13.46	14.90	17.96	18.64	19.03	19.70	21.14
	3H	13.28	13.85	14.35	14.93	16.39	20.00	20.57	21.08	21.66	23.12
	4H	13.37	13.89	14.45	14.97	16.45	20.77	21.29	21.85	22.37	23.85
	6H	13.38	13.82	14.47	14.93	16.40	21.31	21.76	22.40	22.86	24.33
	8H	13.35	13.77	14.44	14.86	16.35	21.47	21.89	22.56	22.99	24.48
	12H	13.30	13.68	14.41	14.79	16.29	21.57	21.95	22.68	23.05	24.55
8H	4H	14.81	15.23	15.90	16.33	17.81	20.82	21.24	21.92	22.34	23.83
	6H	15.05	15.40	16.16	16.53	18.02	21.46	21.80	22.57	22.94	24.43
	8H	15.07	15.37	16.19	16.49	18.00	21.68	21.98	22.80	23.10	24.61
	12H	15.03	15.30	16.16	16.41	17.96	21.82	22.09	22.95	23.20	24.75
12H	4H	14.95	15.33	16.06	16.44	17.93	20.77	21.15	21.88	22.26	23.76
	6H	15.31	15.61	16.43	16.73	18.24	21.44	21.74	22.56	22.86	24.37
	8H	15.38	15.64	16.50	16.76	18.30	21.67	21.94	22.79	23.05	24.59