

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: P937980

Luminaire Tested: SQ4-FB-125U-075D-B2750-1D-UNV-W2A-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937980
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-B2750-1D-UNV-W2A-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

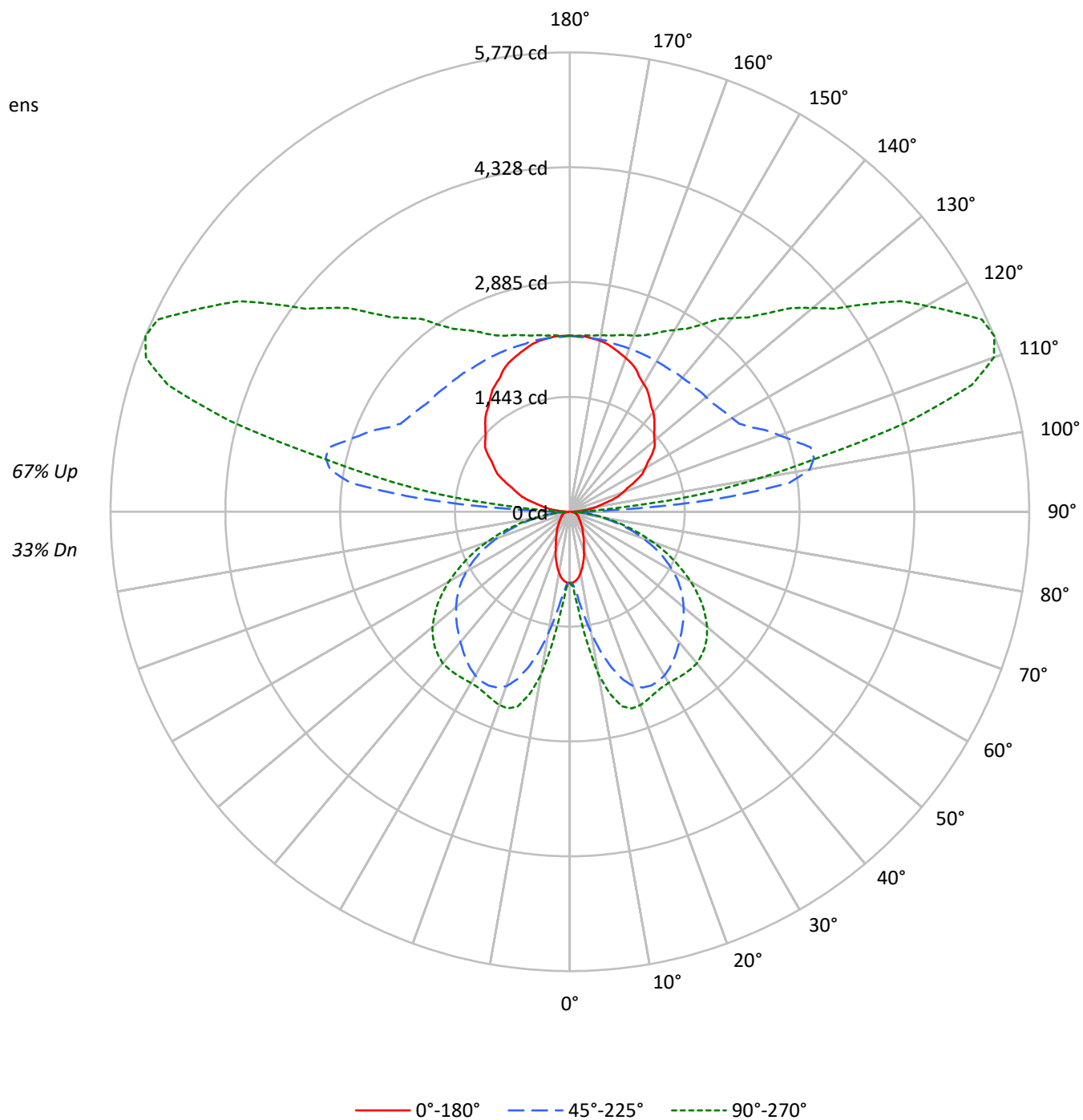
Lumens per Lamp: N/A
Luminaire Lumens: 21229.6 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 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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CATALOG NUMBER: SQ4-FB-125U-075D-B2750-1D-UNV-W2A-W-12-4000K

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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	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	27
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	27	27	22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	31	26	24	23	23	23	18
4	70	59	52	46	63	54	47	42	43	38	34	33	29	26	23	21	19	19	19	15
5	64	53	45	39	57	48	41	35	38	33	29	29	25	23	21	18	16	16	16	13
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	19	16	14	14	14	11
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	12	12	10
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	11	11	8
9	47	34	27	22	42	31	25	20	25	20	17	19	16	13	14	12	10	10	10	7
10	43	31	24	19	39	28	22	18	23	18	15	18	14	12	13	10	9	9	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2756	2756	2756
5°	2693	3186	3705
10°	2444	4646	6142
15°	2078	6071	7416
20°	1692	7037	7558
25°	1412	7366	7404
30°	1191	7414	7390
35°	1054	7293	7581
40°	919	7135	7779
45°	833	7020	7810
50°	764	6917	7680
55°	733	6765	7340
60°	751	6471	6802
65°	783	6023	6064
70°	835	5255	5123
75°	930	4289	3998
80°	1024	2978	2693
85°	927	1583	1379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7810 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	0.5
10°-20°	510.8	2.4
20°-30°	893.5	4.2
30°-40°	1150.3	5.4
40°-50°	1284.8	6.1
50°-60°	1230.5	5.8
60°-70°	975.2	4.6
70°-80°	573.4	2.7
80°-90°	167.7	0.8
90°-100°	1077.4	5.1
100°-110°	2832.5	13.3
110°-120°	2937.0	13.8
120°-130°	2355.8	11.1
130°-140°	1848.5	8.7
140°-150°	1418.8	6.7
150°-160°	1021.8	4.8
160°-170°	625.2	2.9
170°-180°	211.2	1.0
0°-30°	1519.6	7.2
0°-40°	2669.9	12.6
0°-60°	5185.2	24.4
0°-90°	6901.6	32.5
90°-120°	6846.8	32.3
90°-150°	12469.9	58.7
90°-180°	14328.0	67.5
0°-180°	21229.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	868	931	1049	1186	1229	80
15°	650	1200	2023	2452	2530	181
25°	415	1361	2410	2516	2518	191
35°	281	1301	2269	2398	2493	175
45°	192	1037	2006	2298	2401	148
55°	138	659	1702	1977	2031	125
65°	109	350	1264	1421	1441	108
75°	80	215	693	762	765	84
85°	29	66	172	189	192	30
90°	15	42	113	56	56	14
95°	142	558	1856	957	651	158
105°	510	773	3131	4754	4435	541
115°	906	1101	2508	5003	5711	895
125°	1261	1414	2281	3855	4548	1119
135°	1503	1654	2210	3112	3529	1163
145°	1743	1854	2182	2655	2863	1092
155°	1970	2025	2182	2396	2465	905
165°	2126	2154	2182	2268	2296	600
175°	2210	2210	2197	2225	2225	210
180°	2210	2210	2210	2210	2210	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0
2.5°	891.0	891.0	896.7	899.6	905.3	908.2	913.9	919.7	936.9	939.7	945.4
5°	868.1	879.6	916.8	931.1	971.2	1025.7	1048.6	1085.9	1163.3	1186.2	1200.5
7.5°	833.7	859.5	951.2	974.1	1074.4	1217.7	1277.9	1358.1	1481.3	1541.5	1590.2
10°	779.3	833.7	997.0	1051.5	1214.9	1432.6	1544.3	1656.1	1842.3	1925.4	1956.9
12.5°	719.1	807.9	1045.7	1120.3	1355.2	1673.3	1807.9	1931.1	2143.1	2254.9	2272.0
15°	650.4	770.7	1091.7	1200.5	1504.2	1873.8	2022.8	2174.6	2372.3	2452.5	2472.6
17.5°	590.2	742.0	1134.6	1249.2	1618.8	2054.3	2206.1	2332.2	2492.6	2547.1	2561.4
20°	515.7	696.2	1163.3	1312.3	1739.2	2186.1	2332.2	2429.6	2538.5	2572.9	2578.6
22.5°	461.3	647.5	1180.5	1335.2	1819.4	2266.3	2389.5	2466.9	2541.4	2552.8	2555.7
25°	415.4	593.1	1177.6	1361.0	1888.1	2315.0	2409.6	2466.9	2509.8	2515.6	2515.6
27.5°	372.4	532.9	1166.2	1366.7	1939.7	2326.5	2401.0	2441.1	2461.1	2472.6	2472.6
30°	335.2	475.6	1137.5	1355.2	1962.6	2315.0	2375.2	2395.2	2415.3	2432.5	2441.1
32.5°	306.6	421.2	1094.5	1332.3	1965.5	2286.4	2329.3	2340.8	2369.5	2409.6	2423.9
35°	280.8	366.7	1045.7	1300.8	1948.3	2240.5	2269.2	2280.6	2337.9	2398.1	2418.2
37.5°	255.0	326.6	982.7	1246.4	1922.5	2186.1	2206.1	2226.2	2315.0	2386.6	2409.6
40°	229.2	292.2	908.2	1186.2	1882.4	2120.2	2137.4	2168.9	2286.4	2369.5	2392.4
42.5°	209.1	263.6	828.0	1123.2	1830.8	2045.7	2071.5	2117.3	2252.0	2340.8	2366.6
45°	192.0	234.9	742.0	1037.1	1764.9	1968.4	2005.6	2068.6	2211.9	2297.8	2320.7
47.5°	174.8	214.9	653.2	948.3	1693.3	1891.0	1939.7	2011.3	2157.4	2240.5	2260.6
50°	160.4	194.8	564.4	853.8	1616.0	1807.9	1865.2	1939.7	2088.7	2166.0	2191.8
52.5°	149.0	177.6	481.3	759.2	1527.1	1722.0	1787.9	1865.2	2005.6	2080.1	2097.3
55°	137.5	163.3	409.7	658.9	1435.5	1630.3	1701.9	1776.4	1913.9	1976.9	1988.4
57.5°	131.8	151.8	349.5	564.4	1338.1	1527.1	1607.4	1676.1	1805.0	1853.8	1865.2
60°	123.2	143.2	303.7	484.2	1232.0	1429.7	1498.5	1567.3	1676.1	1716.2	1724.8
62.5°	114.6	137.5	269.3	406.8	1123.2	1315.1	1383.9	1446.9	1538.6	1567.3	1578.7
65°	108.9	131.8	243.5	349.5	1011.3	1194.8	1263.6	1318.0	1392.5	1421.1	1426.9
67.5°	103.1	126.1	223.5	300.8	899.6	1074.4	1126.0	1177.6	1234.9	1263.6	1266.4
70°	94.5	120.3	206.3	266.4	785.0	936.9	979.8	1034.3	1080.1	1094.5	1103.1
72.5°	88.8	111.7	194.8	240.7	667.5	805.1	845.2	876.7	916.8	931.1	931.1
75°	80.2	100.3	183.4	214.9	547.2	658.9	693.3	724.8	756.4	762.1	753.5
77.5°	71.6	88.8	157.6	180.5	426.9	521.4	550.1	567.3	593.1	598.8	601.6
80°	60.2	77.4	123.2	140.4	309.4	383.9	404.0	418.3	441.2	441.2	446.9
82.5°	45.8	60.2	88.8	100.3	209.1	263.6	280.8	289.4	303.7	303.7	303.7
85°	28.6	37.2	57.3	65.9	126.1	160.4	171.9	174.8	186.2	189.1	189.1
87.5°	14.3	20.1	37.2	40.1	65.9	83.1	83.1	88.8	88.8	86.0	83.1
90°	14.8	26.6	38.6	41.5	65.2	96.8	112.7	100.2	75.2	56.3	56.3
92.5°	59.3	160.2	261.1	286.3	402.5	557.4	634.9	556.4	399.5	281.8	270.6
95°	142.4	327.0	511.6	557.7	990.3	1567.3	1855.7	1655.9	1256.4	956.8	922.8
97.5°	246.2	409.0	571.9	612.6	1334.0	2295.9	2776.9	2650.6	2398.1	2208.7	2144.1
100°	326.3	474.1	621.7	658.7	1459.1	2526.5	3060.2	3069.5	3087.9	3101.7	3024.8
102.5°	394.6	532.4	670.1	704.6	1516.5	2599.0	3140.3	3301.1	3622.9	3864.2	3798.3
105°	510.3	627.0	743.7	772.9	1559.0	2607.2	3131.3	3492.0	4213.3	4754.2	4718.8
107.5°	629.0	737.7	846.5	873.7	1567.0	2491.3	2953.4	3456.4	4462.4	5217.0	5225.6
110°	709.1	807.3	905.5	930.1	1555.0	2388.4	2805.0	3367.4	4492.1	5335.7	5372.6

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	787.7	881.3	974.9	998.3	1555.5	2298.6	2670.1	3245.7	4396.7	5260.0	5316.8
115°	906.3	992.6	1079.1	1100.6	1569.9	2195.5	2508.4	3062.9	4171.7	5003.4	5082.0
117.5°	1023.6	1102.0	1180.5	1200.1	1599.1	2131.1	2397.1	2897.6	3898.3	4648.8	4736.0
120°	1091.8	1165.6	1239.5	1257.9	1622.8	2109.4	2352.6	2809.9	3724.3	4410.1	4494.8
122.5°	1158.5	1233.0	1307.5	1326.1	1656.9	2098.0	2318.5	2730.2	3553.7	4171.2	4254.8
125°	1260.9	1328.8	1396.7	1413.7	1703.0	2088.6	2281.4	2631.1	3330.7	3855.2	3932.2
127.5°	1344.0	1412.5	1481.1	1498.2	1748.9	2083.1	2250.3	2550.5	3151.1	3601.6	3666.5
130°	1388.5	1462.3	1536.1	1554.5	1782.5	2086.5	2238.4	2505.7	3040.4	3441.4	3501.4
132.5°	1434.4	1508.2	1582.1	1600.6	1809.7	2088.6	2228.0	2467.3	2946.0	3305.0	3358.7
135°	1502.7	1569.9	1637.2	1654.0	1839.4	2086.7	2210.3	2410.7	2811.5	3112.2	3158.5
137.5°	1572.4	1639.0	1705.5	1722.2	1883.8	2099.5	2207.3	2376.7	2715.5	2969.7	3007.6
140°	1630.2	1691.5	1752.8	1768.2	1911.1	2101.6	2196.9	2343.2	2635.9	2855.4	2890.9
142.5°	1674.7	1731.4	1788.1	1802.3	1933.8	2109.2	2196.9	2325.4	2582.6	2775.4	2805.9
145°	1743.0	1792.4	1841.9	1854.2	1963.5	2109.2	2182.1	2287.2	2497.5	2655.2	2678.3
147.5°	1811.2	1859.3	1907.4	1919.5	2007.0	2123.7	2182.1	2264.8	2430.3	2554.3	2573.4
150°	1855.7	1899.2	1942.8	1953.6	2029.8	2131.3	2182.1	2252.0	2391.7	2496.5	2511.9
152.5°	1901.7	1934.6	1967.7	1975.9	2044.7	2136.2	2182.1	2241.8	2361.0	2450.5	2462.3
155°	1969.9	1994.3	2018.7	2024.8	2077.2	2147.1	2182.1	2229.5	2324.5	2395.6	2403.4
157.5°	2020.4	2044.1	2067.9	2073.8	2109.9	2158.0	2182.1	2218.9	2292.8	2348.2	2353.6
160°	2054.5	2072.9	2091.4	2096.0	2124.7	2163.0	2182.1	2213.7	2277.0	2324.5	2327.6
162.5°	2088.6	2102.4	2116.3	2119.7	2140.5	2168.2	2182.1	2208.8	2262.2	2302.2	2305.2
165°	2125.6	2138.1	2150.7	2153.8	2163.3	2175.8	2182.1	2201.2	2239.4	2268.0	2271.2
167.5°	2159.8	2165.7	2171.7	2173.1	2181.0	2191.6	2196.9	2209.4	2234.4	2253.2	2254.6
170°	2182.1	2188.0	2193.9	2195.4	2195.8	2196.5	2196.9	2209.4	2234.4	2253.2	2253.2
172.5°	2193.9	2195.3	2196.6	2196.9	2196.9	2196.9	2196.9	2206.8	2226.6	2241.4	2240.2
175°	2210.3	2210.3	2210.3	2210.3	2205.8	2199.8	2196.9	2203.2	2215.7	2225.1	2225.1
177.5°	2210.3	2210.3	2210.3	2210.3	2206.8	2202.1	2199.8	2204.8	2214.6	2222.1	2220.8
180°	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3	2210.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	891.0	891.0
2.5°	951.2	945.4
5°	1223.5	1229.2
7.5°	1647.5	1644.6
10°	2048.6	2074.4
12.5°	2340.8	2346.5
15°	2518.4	2529.9
17.5°	2587.2	2590.1
20°	2590.1	2584.3
22.5°	2558.5	2552.8
25°	2521.3	2518.4
27.5°	2486.9	2489.8
30°	2472.6	2481.2
32.5°	2472.6	2486.9
35°	2478.3	2492.6
37.5°	2475.5	2492.6
40°	2464.0	2484.1
42.5°	2432.5	2446.8
45°	2383.8	2401.0
47.5°	2320.7	2332.2
50°	2240.5	2252.0
52.5°	2140.3	2143.1
55°	2019.9	2031.4
57.5°	1891.0	1893.9
60°	1747.7	1756.3
62.5°	1595.9	1595.9
65°	1435.5	1441.2
67.5°	1269.3	1283.6
70°	1100.3	1103.1
72.5°	934.0	934.0
75°	762.1	765.0
77.5°	598.8	598.8
80°	444.1	446.9
82.5°	306.6	312.3
85°	192.0	192.0
87.5°	88.8	80.2
90°	56.3	56.3
92.5°	225.8	181.0
95°	787.0	651.2
97.5°	1885.6	1627.2
100°	2716.9	2409.0
102.5°	3534.6	3270.9
105°	4577.0	4435.3
107.5°	5259.9	5294.1
110°	5520.3	5667.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5543.5	5770.3
115°	5396.5	5711.0
117.5°	5084.8	5433.6
120°	4833.6	5172.5
122.5°	4589.1	4923.3
125°	4240.1	4548.0
127.5°	3926.3	4186.1
130°	3741.4	3981.4
132.5°	3573.6	3788.5
135°	3343.6	3528.9
137.5°	3159.2	3310.9
140°	3032.7	3174.4
142.5°	2927.8	3049.8
145°	2770.6	2862.9
147.5°	2649.9	2726.4
150°	2574.0	2636.0
152.5°	2509.1	2555.9
155°	2434.4	2465.3
157.5°	2375.4	2397.1
160°	2340.1	2352.6
162.5°	2317.0	2328.9
165°	2283.7	2296.3
167.5°	2259.8	2265.1
170°	2253.2	2253.2
172.5°	2235.6	2231.0
175°	2225.1	2225.1
177.5°	2215.5	2210.3
180°	2210.3	2210.3

TEST NUMBER: P937980

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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	2.67	3.42	3.76	4.51	6.00	15.86	16.61	16.95	17.70	19.20
	3H	3.37	4.03	4.46	5.13	6.65	17.70	18.37	18.79	19.47	20.98
	4H	3.66	4.29	4.77	5.39	6.92	18.34	18.98	19.45	20.08	21.60
	6H	3.90	4.49	5.02	5.59	7.13	18.77	19.36	19.89	20.46	21.99
	8H	3.97	4.52	5.09	5.64	7.17	18.89	19.45	20.01	20.57	22.09
	12H	3.98	4.51	5.11	5.62	7.17	18.96	19.49	20.08	20.60	22.15
4H	2H	9.88	10.52	10.99	11.62	13.14	16.12	16.76	17.24	17.86	19.38
	3H	11.44	11.97	12.56	13.09	14.63	18.16	18.69	19.28	19.82	21.35
	4H	11.52	12.01	12.65	13.13	14.68	18.93	19.42	20.05	20.53	22.09
	6H	11.53	11.95	12.66	13.09	14.63	19.46	19.88	20.60	21.02	22.57
	8H	11.50	11.89	12.63	13.03	14.59	19.63	20.02	20.76	21.15	22.71
	12H	11.45	11.81	12.60	12.95	14.52	19.72	20.07	20.86	21.21	22.78
8H	4H	12.96	13.35	14.09	14.49	16.05	18.98	19.37	20.11	20.50	22.06
	6H	13.20	13.52	14.35	14.70	16.26	19.60	19.93	20.76	21.10	22.66
	8H	13.22	13.50	14.38	14.65	16.23	19.83	20.11	20.99	21.26	22.84
	12H	13.18	13.43	14.34	14.58	16.19	19.97	20.22	21.13	21.37	22.98
12H	4H	13.10	13.46	14.25	14.60	16.17	18.92	19.28	20.07	20.42	21.99
	6H	13.46	13.74	14.62	14.89	16.47	19.59	19.87	20.75	21.02	22.60
	8H	13.52	13.77	14.69	14.92	16.53	19.81	20.06	20.98	21.21	22.83