

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: P938192

Luminaire Tested: SQ4-FB-125U-125D-B2750-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

**Test Information**

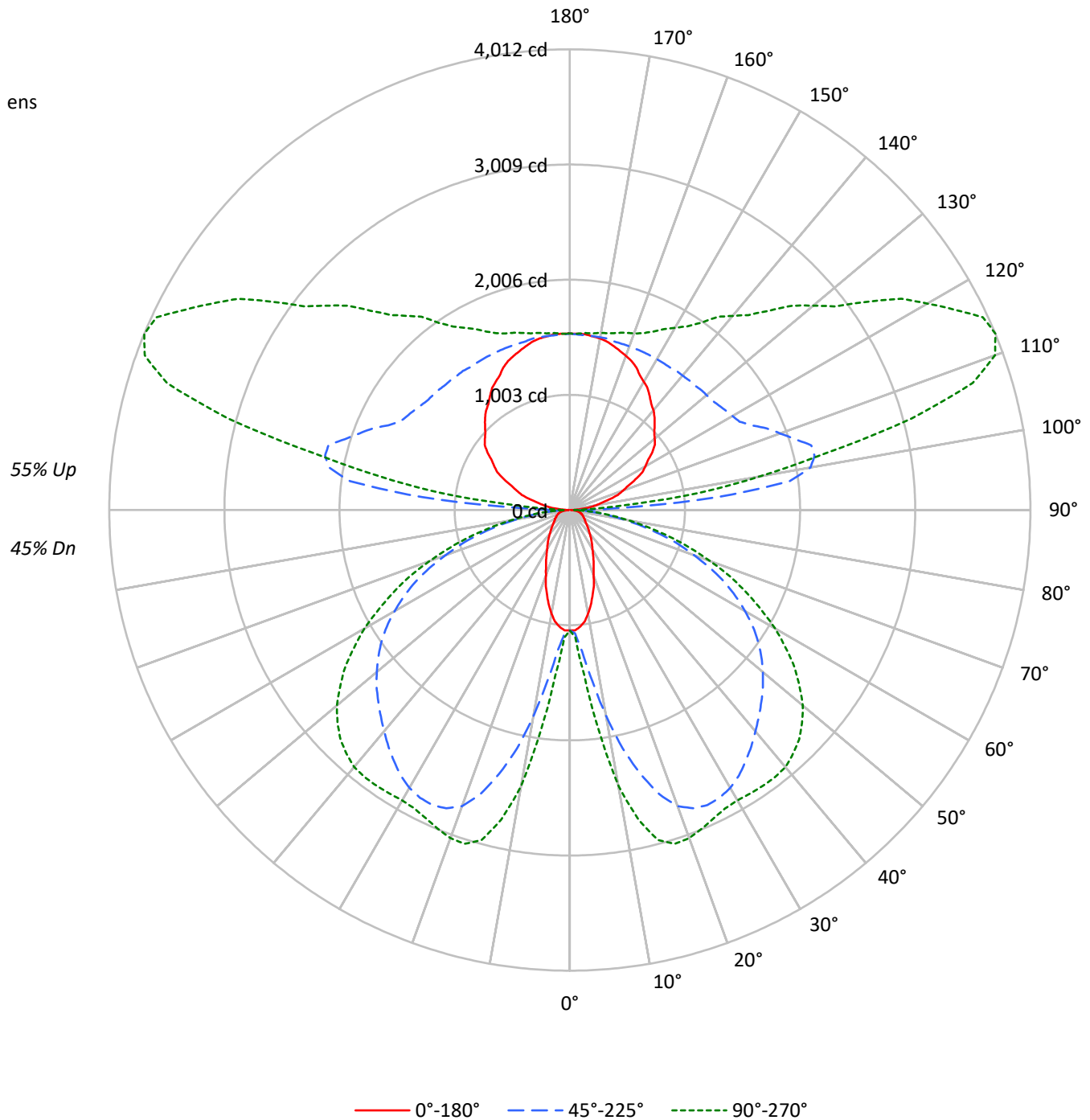
Test Method: LM-79-2019  
Report Number: P938192  
REPORT IS A COMBINATION OF REPORTS P933616 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-125D-B2750-1D-UNV-STD-W-8-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18078.4 lumens  
Efficiency: N/A  
Efficacy: 120.2 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 150.4  
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42	37
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	4864	4864	4864
5°	4752	5622	6538
10°	4310	8195	10840
15°	3663	10706	13088
20°	2982	12408	13339
25°	2488	12984	13068
30°	2098	13066	13044
35°	1855	12849	13380
40°	1617	12567	13730
45°	1464	12360	13783
50°	1342	12175	13555
55°	1286	11903	12954
60°	1316	11379	12005
65°	1370	10585	10702
70°	1460	9231	9041
75°	1617	7527	7055
80°	1766	5220	4754
85°	1570	2770	2434

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13783 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.6	0.8
10°-20°	601.1	3.3
20°-30°	1051.3	5.8
30°-40°	1353.4	7.5
40°-50°	1511.7	8.4
50°-60°	1447.8	8.0
60°-70°	1147.4	6.3
70°-80°	674.7	3.7
80°-90°	193.3	1.1
90°-100°	749.1	4.1
100°-110°	1969.4	10.9
110°-120°	2042.0	11.3
120°-130°	1638.0	9.1
130°-140°	1285.2	7.1
140°-150°	986.5	5.5
150°-160°	710.4	3.9
160°-170°	434.7	2.4
170°-180°	146.9	0.8
0°-30°	1788.0	9.9
0°-40°	3141.4	17.4
0°-60°	6100.9	33.7
0°-90°	8116.3	44.9
90°-120°	4760.5	26.3
90°-150°	8670.2	48.0
90°-180°	9962.0	55.1
0°-180°	18078.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1021	1096	1234	1396	1446	94
15°	765	1412	2380	2886	2977	213
25°	489	1601	2835	2960	2963	225
35°	330	1530	2670	2822	2933	206
45°	226	1220	2360	2704	2825	175
55°	162	775	2002	2326	2390	147
65°	128	411	1487	1672	1696	127
75°	94	253	816	897	900	99
85°	34	78	202	222	226	36
90°	10	29	78	39	39	11
95°	99	388	1290	665	453	110
105°	355	537	2177	3306	3084	376
115°	630	765	1744	3479	3971	622
125°	877	983	1586	2680	3162	778
135°	1045	1150	1537	2164	2454	808
145°	1212	1289	1517	1846	1990	759
155°	1370	1408	1517	1666	1714	629
165°	1478	1498	1517	1577	1597	417
175°	1537	1537	1528	1547	1547	146
180°	1537	1537	1537	1537	1537	



TEST NUMBER: P938192

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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4
2.5°	1048.4	1048.4	1055.2	1058.5	1065.2	1068.6	1075.4	1082.2	1102.4	1105.8	1112.4
5°	1021.4	1034.9	1078.8	1095.6	1142.8	1206.9	1233.8	1277.7	1368.6	1395.6	1412.4
7.5°	981.0	1011.3	1119.2	1146.2	1264.1	1432.7	1503.5	1597.9	1742.8	1813.6	1871.0
10°	916.9	981.0	1173.1	1237.1	1429.4	1685.5	1817.0	1948.5	2167.6	2265.4	2302.5
12.5°	846.1	950.7	1230.5	1318.1	1594.5	1968.7	2127.2	2272.1	2521.6	2653.0	2673.3
15°	765.2	906.9	1284.3	1412.4	1769.8	2204.6	2379.9	2558.6	2791.3	2885.6	2909.2
17.5°	694.4	873.1	1334.9	1469.8	1904.7	2417.1	2595.7	2744.1	2932.8	2996.9	3013.7
20°	606.8	819.2	1368.6	1543.9	2046.3	2572.2	2744.1	2858.6	2986.8	3027.2	3033.9
22.5°	542.7	761.8	1388.9	1570.9	2140.6	2666.5	2811.5	2902.4	2990.1	3003.6	3007.0
25°	488.8	697.8	1385.5	1601.3	2221.6	2723.9	2835.1	2902.4	2953.0	2959.8	2959.8
27.5°	438.2	627.0	1372.0	1608.0	2282.2	2737.3	2825.0	2872.2	2895.8	2909.2	2909.2
30°	394.4	559.6	1338.3	1594.5	2309.2	2723.9	2794.6	2818.2	2841.8	2862.0	2872.2
32.5°	360.8	495.5	1287.7	1567.5	2312.5	2690.1	2740.7	2754.1	2787.9	2835.1	2851.9
35°	330.4	431.5	1230.5	1530.5	2292.3	2636.2	2669.9	2683.3	2750.8	2821.6	2845.2
37.5°	300.0	384.3	1156.3	1466.4	2262.0	2572.2	2595.7	2619.3	2723.9	2808.1	2835.1
40°	269.7	343.8	1068.6	1395.6	2214.8	2494.6	2514.8	2551.9	2690.1	2787.9	2814.8
42.5°	246.1	310.2	974.3	1321.5	2154.1	2406.9	2437.3	2491.2	2649.7	2754.1	2784.5
45°	225.9	276.4	873.1	1220.3	2076.6	2315.9	2359.7	2433.9	2602.4	2703.6	2730.5
47.5°	205.7	252.8	768.6	1115.8	1992.3	2224.9	2282.2	2366.5	2538.4	2636.2	2659.8
50°	188.7	229.3	664.1	1004.6	1901.3	2127.2	2194.6	2282.2	2457.5	2548.6	2578.8
52.5°	175.3	209.0	566.3	893.3	1796.8	2026.0	2103.6	2194.6	2359.7	2447.4	2467.6
55°	161.8	192.1	482.1	775.4	1688.9	1918.1	2002.5	2090.1	2251.9	2326.1	2339.5
57.5°	155.1	178.7	411.2	664.1	1574.3	1796.8	1891.2	1972.1	2123.8	2181.0	2194.6
60°	144.9	168.5	357.4	569.7	1449.6	1682.1	1763.0	1844.0	1972.1	2019.3	2029.4
62.5°	134.9	161.8	316.9	478.7	1321.5	1547.3	1628.3	1702.4	1810.2	1844.0	1857.4
65°	128.1	155.1	286.5	411.2	1190.0	1405.8	1486.6	1550.7	1638.3	1672.1	1678.8
67.5°	121.3	148.3	262.9	354.0	1058.5	1264.1	1324.8	1385.5	1453.0	1486.6	1490.0
70°	111.3	141.6	242.7	313.5	923.7	1102.4	1152.9	1216.9	1270.9	1287.7	1297.9
72.5°	104.5	131.5	229.3	283.2	785.4	947.3	994.5	1031.6	1078.8	1095.6	1095.6
75°	94.4	118.0	215.7	252.8	643.9	775.4	815.8	852.9	889.9	896.7	886.6
77.5°	84.3	104.5	185.5	212.3	502.3	613.5	647.2	667.5	697.8	704.6	708.0
80°	70.8	91.0	144.9	165.1	364.0	451.7	475.3	492.2	519.1	519.1	525.9
82.5°	54.0	70.8	104.5	118.0	246.1	310.2	330.4	340.4	357.4	357.4	357.4
85°	33.7	43.8	67.4	77.5	148.3	188.7	202.3	205.7	219.1	222.5	222.5
87.5°	16.8	23.6	43.8	47.2	77.5	97.8	97.8	104.5	104.5	101.1	97.8
90°	10.4	18.6	26.8	28.9	45.4	67.4	78.4	69.6	52.2	39.1	39.1
92.5°	41.2	111.4	181.6	199.1	279.9	387.5	441.4	386.8	277.8	195.9	188.1
95°	99.0	227.4	355.8	387.8	688.6	1089.7	1290.2	1151.4	873.6	665.2	641.6
97.5°	171.2	284.5	397.7	426.0	927.6	1596.4	1930.7	1843.0	1667.4	1535.7	1490.8
100°	226.9	329.6	432.3	458.0	1014.5	1756.6	2127.8	2134.1	2147.0	2156.6	2103.2
102.5°	274.3	370.1	465.9	489.9	1054.5	1807.1	2183.4	2295.3	2519.0	2686.7	2640.9
105°	354.8	435.9	517.0	537.3	1083.9	1812.8	2177.3	2427.9	2929.4	3305.5	3280.9
107.5°	437.3	512.9	588.5	607.5	1089.4	1732.1	2053.5	2403.2	3102.7	3627.3	3633.3
110°	493.0	561.3	629.7	646.7	1081.3	1660.6	1950.4	2341.4	3123.4	3709.8	3735.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	547.7	612.7	677.9	694.1	1081.6	1598.2	1856.4	2256.6	3056.9	3657.2	3696.7
115°	630.2	690.2	750.2	765.2	1091.5	1526.6	1744.1	2129.5	2900.6	3478.8	3533.5
117.5°	711.6	766.2	820.7	834.3	1111.8	1481.7	1666.7	2014.6	2710.4	3232.3	3293.0
120°	759.1	810.4	861.7	874.6	1128.3	1466.6	1635.7	1953.7	2589.4	3066.3	3125.1
122.5°	805.5	857.3	909.0	922.0	1152.0	1458.6	1612.0	1898.3	2470.9	2900.3	2958.3
125°	876.7	923.9	971.1	982.9	1183.9	1452.2	1586.2	1829.5	2315.8	2680.5	2734.0
127.5°	934.4	982.2	1029.8	1041.7	1216.0	1448.4	1564.6	1773.4	2191.0	2504.1	2549.3
130°	965.3	1016.7	1068.0	1080.9	1239.3	1450.7	1556.3	1742.2	2114.0	2392.8	2434.5
132.5°	997.3	1048.7	1100.0	1112.8	1258.2	1452.2	1549.1	1715.5	2048.3	2297.9	2335.2
135°	1044.8	1091.5	1138.3	1150.0	1278.9	1450.8	1536.7	1676.1	1954.7	2163.8	2196.0
137.5°	1093.2	1139.5	1185.8	1197.4	1309.8	1459.7	1534.6	1652.5	1888.1	2064.8	2091.2
140°	1133.4	1176.1	1218.7	1229.4	1328.8	1461.2	1527.5	1629.3	1832.7	1985.4	2010.0
142.5°	1164.4	1203.9	1243.2	1253.1	1344.5	1466.5	1527.5	1616.8	1795.6	1929.7	1950.9
145°	1211.8	1246.2	1280.7	1289.2	1365.2	1466.5	1517.1	1590.2	1736.5	1846.2	1862.2
147.5°	1259.3	1292.8	1326.3	1334.6	1395.5	1476.6	1517.1	1574.7	1689.7	1776.1	1789.3
150°	1290.2	1320.5	1350.8	1358.3	1411.2	1481.8	1517.1	1565.7	1662.9	1735.8	1746.6
152.5°	1322.2	1345.1	1368.0	1373.8	1421.6	1485.2	1517.1	1558.6	1641.6	1703.9	1712.0
155°	1369.7	1386.6	1403.6	1407.8	1444.3	1492.8	1517.1	1550.2	1616.2	1665.7	1671.1
157.5°	1404.8	1421.2	1437.7	1441.8	1466.9	1500.4	1517.1	1542.8	1594.1	1632.6	1636.4
160°	1428.5	1441.3	1454.2	1457.3	1477.3	1503.9	1517.1	1539.1	1583.1	1616.1	1618.3
162.5°	1452.2	1461.7	1471.4	1473.8	1488.2	1507.4	1517.1	1535.6	1572.8	1600.7	1602.8
165°	1478.0	1486.7	1495.4	1497.6	1504.1	1512.7	1517.1	1530.5	1557.0	1577.0	1579.2
167.5°	1501.7	1505.8	1509.9	1510.9	1516.4	1523.8	1527.5	1536.1	1553.6	1566.6	1567.5
170°	1517.1	1521.3	1525.5	1526.5	1526.8	1527.3	1527.5	1536.1	1553.6	1566.6	1566.6
172.5°	1525.4	1526.3	1527.3	1527.5	1527.5	1527.5	1527.5	1534.3	1548.1	1558.4	1557.6
175°	1536.7	1536.7	1536.7	1536.7	1533.6	1529.6	1527.5	1531.8	1540.5	1547.1	1547.1
177.5°	1536.7	1536.7	1536.7	1536.7	1534.3	1531.2	1529.6	1532.9	1539.8	1545.0	1544.1
180°	1536.7	1536.7	1536.7	1536.7	1536.7	1536.7	1536.7	1536.7	1536.7	1536.7	1536.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1048.4	1048.4
2.5°	1119.2	1112.4
5°	1439.4	1446.2
7.5°	1938.3	1935.0
10°	2410.3	2440.7
12.5°	2754.1	2760.9
15°	2963.2	2976.6
17.5°	3044.1	3047.5
20°	3047.5	3040.7
22.5°	3010.4	3003.6
25°	2966.6	2963.2
27.5°	2926.0	2929.4
30°	2909.2	2919.4
32.5°	2909.2	2926.0
35°	2916.0	2932.8
37.5°	2912.6	2932.8
40°	2899.2	2922.8
42.5°	2862.0	2878.9
45°	2804.7	2825.0
47.5°	2730.5	2744.1
50°	2636.2	2649.7
52.5°	2518.2	2521.6
55°	2376.6	2390.1
57.5°	2224.9	2228.3
60°	2056.3	2066.5
62.5°	1877.7	1877.7
65°	1688.9	1695.7
67.5°	1493.4	1510.2
70°	1294.5	1297.9
72.5°	1099.0	1099.0
75°	896.7	900.1
77.5°	704.6	704.6
80°	522.5	525.9
82.5°	360.8	367.4
85°	225.9	225.9
87.5°	104.5	94.4
90°	39.1	39.1
92.5°	157.0	125.8
95°	547.2	452.8
97.5°	1311.1	1131.5
100°	1889.0	1675.0
102.5°	2457.5	2274.2
105°	3182.3	3083.8
107.5°	3657.1	3680.9
110°	3838.2	3940.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3854.3	4012.0
115°	3752.1	3970.8
117.5°	3535.4	3777.9
120°	3360.8	3596.4
122.5°	3190.8	3423.2
125°	2948.2	3162.2
127.5°	2729.9	2910.5
130°	2601.4	2768.2
132.5°	2484.7	2634.1
135°	2324.9	2453.6
137.5°	2196.6	2302.1
140°	2108.6	2207.1
142.5°	2035.6	2120.5
145°	1926.4	1990.5
147.5°	1842.5	1895.7
150°	1789.7	1832.7
152.5°	1744.5	1777.1
155°	1692.6	1714.1
157.5°	1651.6	1666.7
160°	1627.0	1635.7
162.5°	1611.0	1619.3
165°	1587.8	1596.6
167.5°	1571.2	1574.9
170°	1566.6	1566.6
172.5°	1554.4	1551.2
175°	1547.1	1547.1
177.5°	1540.4	1536.7
180°	1536.7	1536.7



TEST NUMBER: P938192  
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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	6.02	6.87	7.01	7.88	9.21	19.20	20.05	20.19	21.05	22.39
	3H	6.72	7.48	7.72	8.50	9.86	21.03	21.80	22.04	22.82	24.18
	4H	7.02	7.74	8.03	8.76	10.13	21.68	22.40	22.69	23.42	24.79
	6H	7.27	7.94	8.29	8.96	10.34	22.11	22.78	23.13	23.80	25.18
	8H	7.34	7.97	8.37	9.02	10.39	22.23	22.87	23.26	23.91	25.28
	12H	7.35	7.96	8.39	9.00	10.40	22.30	22.90	23.33	23.94	25.34
4H	2H	13.23	13.96	14.25	14.98	16.34	19.47	20.19	20.49	21.21	22.58
	3H	14.80	15.40	15.83	16.45	17.83	21.51	22.12	22.54	23.17	24.55
	4H	14.89	15.45	15.93	16.49	17.89	22.28	22.84	23.32	23.88	25.28
	6H	14.90	15.38	15.95	16.45	17.84	22.82	23.30	23.87	24.36	25.76
	8H	14.88	15.33	15.93	16.38	17.80	22.98	23.43	24.03	24.49	25.90
	12H	14.83	15.24	15.90	16.31	17.73	23.07	23.48	24.14	24.55	25.97
8H	4H	16.34	16.78	17.39	17.84	19.26	22.34	22.79	23.39	23.84	25.26
	6H	16.58	16.95	17.65	18.05	19.46	22.97	23.34	24.04	24.44	25.85
	8H	16.59	16.92	17.68	18.00	19.44	23.19	23.51	24.27	24.60	26.03
	12H	16.56	16.85	17.65	17.93	19.40	23.33	23.62	24.42	24.70	26.17
12H	4H	16.48	16.88	17.55	17.96	19.38	22.29	22.70	23.36	23.77	25.19
	6H	16.84	17.16	17.92	18.24	19.68	22.95	23.28	24.03	24.36	25.79
	8H	16.90	17.19	17.99	18.27	19.74	23.18	23.47	24.27	24.55	26.02