

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P245476

Luminaire Tested: **LSR8B40D010 EC8B40840 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245476  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B40D010 EC8B40840 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4466.0 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

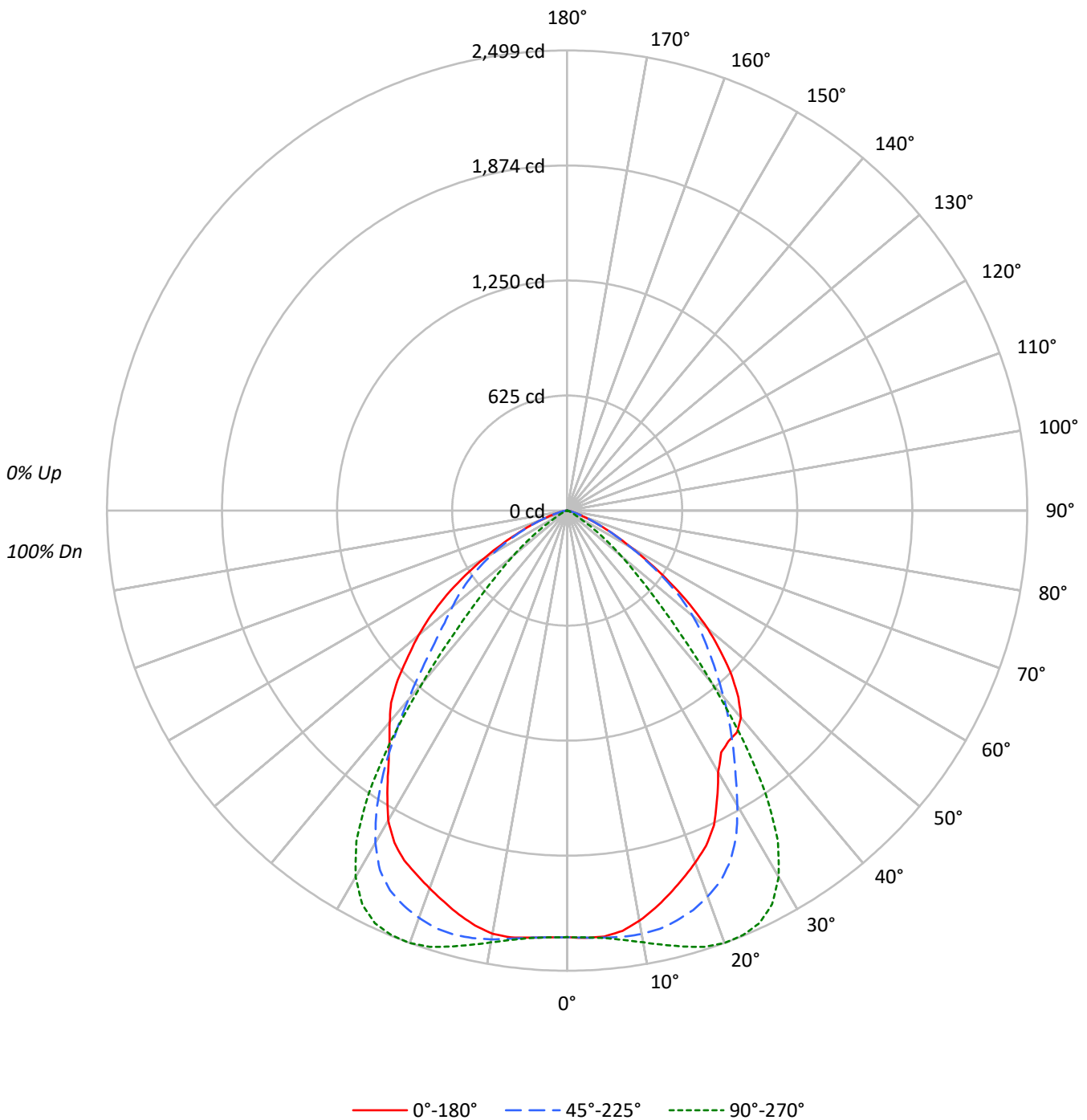
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45					45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41					41			
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38					38			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

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

	0°	90°	180°
0°	71442	71442	71442
5°	71866	72132	72058
10°	70812	74548	73082
15°	68742	78243	72509
20°	66746	81999	71629
25°	64183	84101	71298
30°	58413	81796	69184
35°	57539	70873	63653
40°	59105	49154	60341
45°	55022	29711	56740
50°	47728	18345	50559
55°	36628	9586	42907
60°	24953	3867	32384
65°	15520	1977	22342
70°	8430	1217	13641
75°	4396	584	8054
80°	1971	657	4368
85°	1309	425	3927



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.8	5.0
10°-20°	660.0	14.8
20°-30°	1006.9	22.5
30°-40°	1050.8	23.5
40°-50°	789.3	17.7
50°-60°	485.6	10.9
60°-70°	197.6	4.4
70°-80°	46.6	1.0
80°-90°	6.4	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1889.8	42.3
0°-40°	2940.5	65.8
0°-60°	4215.4	94.4
0°-90°	4466.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4466.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2317	2317	2317	2317	2317	
5°	2322	2328	2330	2328	2328	220
15°	2153	2304	2451	2383	2271	607
25°	1886	2098	2472	2276	2096	858
35°	1528	1572	1883	1740	1691	965
45°	1262	1092	681	1017	1301	963
55°	681	647	178	647	798	612
65°	213	215	27	289	306	222
75°	37	37	5	65	68	44
85°	4	4	1	9	11	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8
2.5°	2323.0	2319.3	2323.0	2323.0	2324.2	2321.7	2323.0	2324.2	2321.7	2321.7	2321.7
5°	2321.7	2319.3	2321.7	2320.5	2323.0	2323.0	2325.4	2325.4	2327.9	2327.9	2331.6
7.5°	2302.1	2297.2	2302.1	2305.8	2308.2	2313.1	2319.3	2324.2	2329.1	2334.0	2340.2
10°	2261.5	2261.5	2265.2	2272.5	2279.9	2288.5	2299.6	2311.9	2324.2	2335.2	2346.3
12.5°	2211.1	2207.4	2214.7	2224.6	2235.7	2249.2	2266.4	2284.8	2304.5	2326.6	2343.9
15°	2153.3	2149.6	2158.2	2168.0	2181.6	2201.2	2222.1	2246.7	2275.0	2304.5	2332.8
17.5°	2094.2	2093.0	2101.6	2115.1	2126.2	2147.1	2174.2	2203.7	2235.7	2275.0	2311.9
20°	2034.0	2032.8	2041.4	2052.4	2067.2	2086.9	2113.9	2148.3	2186.5	2230.7	2273.8
22.5°	1971.3	1972.5	1979.9	1992.2	2004.5	2025.4	2053.6	2088.1	2129.9	2177.8	2225.8
25°	1886.4	1880.3	1890.1	1902.4	1923.3	1940.5	1967.6	2004.5	2047.5	2097.9	2154.5
27.5°	1763.4	1762.2	1770.8	1781.9	1800.3	1821.2	1850.7	1888.9	1934.4	1989.7	2045.0
30°	1640.5	1642.9	1646.6	1657.7	1670.0	1690.9	1720.4	1752.4	1795.4	1848.3	1907.3
32.5°	1556.8	1556.8	1561.8	1569.1	1577.7	1588.8	1609.7	1633.1	1666.3	1703.2	1746.2
35°	1528.5	1523.6	1528.5	1529.8	1531.0	1533.5	1537.2	1544.6	1555.6	1571.6	1587.6
37.5°	1516.3	1512.6	1512.6	1507.7	1501.5	1494.1	1484.3	1473.2	1460.9	1444.9	1432.7
40°	1468.3	1465.8	1463.4	1458.5	1444.9	1430.2	1414.2	1388.4	1360.1	1320.7	1281.4
42.5°	1376.1	1373.6	1372.4	1362.5	1350.2	1333.0	1314.6	1287.5	1251.9	1201.4	1144.9
45°	1261.7	1256.8	1253.1	1244.5	1235.9	1221.1	1203.9	1179.3	1143.6	1092.0	1024.4
47.5°	1128.9	1126.4	1125.2	1121.5	1112.9	1104.3	1093.2	1073.6	1041.6	992.4	922.3
50°	994.9	989.9	992.4	991.2	987.5	981.3	973.9	960.4	935.8	891.6	827.6
52.5°	841.1	841.1	839.9	843.6	844.8	843.6	844.8	830.1	809.2	775.9	721.8
55°	681.3	681.3	685.0	689.9	694.8	696.0	694.8	688.7	673.9	646.8	598.9
57.5°	531.2	528.8	536.2	543.5	548.5	553.4	549.7	544.8	536.2	514.0	477.1
60°	404.6	404.6	409.5	414.4	419.3	424.3	423.0	421.8	414.4	399.6	370.2
62.5°	297.6	298.8	298.8	302.5	307.4	312.4	316.0	312.4	308.7	298.8	279.1
65°	212.7	211.5	212.7	216.4	220.1	225.0	227.5	226.3	222.6	215.2	200.5
67.5°	142.7	141.4	146.3	147.6	150.0	155.0	153.7	155.0	153.7	147.6	135.3
70°	93.5	91.0	93.5	92.2	95.9	97.2	99.6	100.8	99.6	95.9	92.2
72.5°	57.8	56.6	57.8	59.0	60.3	61.5	63.9	63.9	62.7	60.3	55.3
75°	36.9	33.2	34.4	32.0	34.4	34.4	36.9	38.1	36.9	36.9	34.4
77.5°	22.1	22.1	22.1	22.1	22.1	22.1	22.1	23.4	24.6	22.1	20.9
80°	11.1	11.1	12.3	12.3	12.3	13.5	12.3	12.3	12.3	13.5	9.8
82.5°	8.6	7.4	7.4	7.4	8.6	7.4	7.4	7.4	7.4	7.4	7.4
85°	3.7	4.9	3.7	2.5	3.7	3.7	4.9	3.7	3.7	3.7	4.9
87.5°	1.2	1.2	0.0	0.0	0.0	1.2	0.0	1.2	1.2	2.5	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8
2.5°	2323.0	2320.5	2320.5	2319.3	2321.7	2319.3	2320.5	2319.3	2319.3	2321.7	2319.3
5°	2331.6	2332.8	2330.3	2329.1	2332.8	2332.8	2332.8	2330.3	2330.3	2331.6	2330.3
7.5°	2343.9	2346.3	2347.6	2348.8	2351.3	2352.5	2352.5	2351.3	2350.0	2353.7	2348.8
10°	2357.4	2361.1	2368.5	2372.2	2378.3	2378.3	2380.8	2380.8	2378.3	2380.8	2379.5
12.5°	2352.5	2374.6	2386.9	2395.5	2404.1	2411.5	2414.0	2415.2	2414.0	2418.9	2414.0
15°	2361.1	2379.5	2399.2	2414.0	2429.9	2438.5	2441.0	2450.9	2453.3	2454.6	2447.2
17.5°	2347.6	2380.8	2401.7	2423.8	2447.2	2463.2	2477.9	2484.1	2485.3	2487.7	2477.9
20°	2316.8	2353.7	2385.7	2417.7	2444.7	2469.3	2481.6	2498.8	2493.9	2503.7	2490.2
22.5°	2275.0	2316.8	2357.4	2399.2	2427.5	2457.0	2482.8	2495.1	2501.3	2501.3	2486.5
25°	2208.6	2257.8	2302.1	2345.1	2388.1	2423.8	2453.3	2471.8	2475.5	2474.2	2457.0
27.5°	2105.3	2158.2	2209.8	2259.0	2311.9	2353.7	2388.1	2410.3	2416.4	2416.4	2398.0
30°	1962.6	2019.2	2069.6	2128.7	2182.8	2229.5	2277.5	2297.2	2308.2	2308.2	2287.3
32.5°	1792.9	1840.9	1887.6	1945.4	2004.5	2057.3	2102.8	2129.9	2143.4	2142.2	2123.7
35°	1608.5	1631.8	1667.5	1710.6	1763.4	1812.6	1856.9	1882.7	1906.1	1904.8	1887.6
37.5°	1424.0	1417.9	1421.6	1437.6	1470.7	1505.2	1539.6	1564.2	1583.9	1592.5	1588.8
40°	1243.3	1211.3	1180.5	1169.5	1171.9	1184.2	1202.7	1221.1	1243.3	1254.3	1259.2
42.5°	1080.9	1026.8	972.7	932.1	908.8	901.4	910.0	916.1	929.7	945.7	961.7
45°	950.6	878.0	806.7	744.0	704.6	681.3	676.4	681.3	688.7	704.6	725.5
47.5°	843.6	758.7	678.8	608.7	550.9	520.2	511.6	509.1	516.5	531.2	559.5
50°	748.9	664.0	575.5	494.3	434.1	399.6	387.4	382.4	391.0	402.1	427.9
52.5°	645.6	562.0	471.0	392.3	329.6	293.9	280.4	273.0	277.9	292.7	318.5
55°	533.7	456.2	373.8	292.7	232.4	199.2	183.2	178.3	183.2	199.2	225.0
57.5°	421.8	356.6	287.7	211.5	157.4	124.2	108.2	103.3	116.8	123.0	150.0
60°	329.6	276.7	217.7	155.0	108.2	82.4	66.4	62.7	68.9	79.9	102.1
62.5°	247.2	214.0	167.2	110.7	79.9	52.9	44.3	40.6	44.3	52.9	70.1
65°	179.5	153.7	116.8	81.2	54.1	39.4	29.5	27.1	30.8	36.9	51.7
67.5°	123.0	103.3	81.2	56.6	36.9	24.6	20.9	20.9	22.1	27.1	38.1
70°	79.9	67.6	51.7	36.9	24.6	18.4	16.0	13.5	16.0	19.7	25.8
72.5°	50.4	43.0	33.2	25.8	18.4	13.5	11.1	9.8	12.3	14.7	19.7
75°	30.8	23.4	17.2	13.5	9.8	9.8	9.8	4.9	6.1	9.8	12.3
77.5°	18.4	16.0	13.5	11.1	8.6	4.9	4.9	4.9	6.1	7.4	11.1
80°	9.8	8.6	6.1	6.1	4.9	3.7	4.9	3.7	2.5	6.1	7.4
82.5°	6.1	4.9	4.9	4.9	6.1	2.5	3.7	2.5	3.7	4.9	3.7
85°	3.7	3.7	3.7	2.5	6.1	2.5	2.5	1.2	1.2	2.5	2.5
87.5°	0.0	1.2	1.2	0.0	1.2	0.0	1.2	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8	2316.8
2.5°	2320.5	2319.3	2320.5	2319.3	2319.3	2319.3	2320.5	2320.5	2319.3	2319.3	2321.7
5°	2330.3	2330.3	2330.3	2329.1	2327.9	2327.9	2330.3	2330.3	2326.6	2330.3	2330.3
7.5°	2351.3	2347.6	2351.3	2346.3	2343.9	2345.1	2346.3	2343.9	2341.4	2342.6	2342.6
10°	2378.3	2374.6	2374.6	2370.9	2367.2	2364.8	2362.3	2356.2	2350.0	2348.8	2343.9
12.5°	2410.3	2404.1	2400.5	2393.1	2386.9	2378.3	2370.9	2361.1	2348.8	2340.2	2331.6
15°	2442.2	2432.4	2423.8	2411.5	2398.0	2383.2	2367.2	2351.3	2331.6	2314.4	2299.6
17.5°	2468.1	2454.6	2438.5	2418.9	2399.2	2377.1	2353.7	2330.3	2302.1	2279.9	2262.7
20°	2476.7	2457.0	2436.1	2410.3	2384.4	2353.7	2324.2	2293.5	2261.5	2238.1	2218.4
22.5°	2465.6	2442.2	2416.4	2389.4	2354.9	2321.7	2287.3	2251.6	2223.3	2191.4	2172.9
25°	2434.9	2406.6	2378.3	2346.3	2313.1	2276.2	2239.4	2202.5	2168.0	2150.8	2127.4
27.5°	2372.2	2341.4	2310.7	2277.5	2239.4	2202.5	2164.3	2128.7	2099.2	2075.8	2062.3
30°	2261.5	2225.8	2190.2	2154.5	2121.3	2083.2	2047.5	2018.0	1988.5	1970.0	1956.5
32.5°	2091.8	2059.8	2024.2	1989.7	1959.0	1927.0	1897.5	1871.7	1850.7	1838.4	1828.6
35°	1863.1	1831.1	1804.0	1779.4	1753.6	1740.1	1721.6	1706.9	1698.3	1693.3	1692.1
37.5°	1575.3	1556.8	1548.2	1543.3	1538.4	1534.7	1537.2	1543.3	1548.2	1556.8	1566.7
40°	1267.9	1283.8	1288.8	1306.0	1322.0	1342.9	1366.2	1393.3	1415.4	1443.7	1463.4
42.5°	987.5	1017.0	1051.4	1088.3	1127.7	1165.8	1212.5	1255.5	1294.9	1330.6	1361.3
45°	758.7	804.2	855.9	908.8	961.7	1017.0	1073.6	1126.4	1173.2	1211.3	1243.3
47.5°	591.5	641.9	708.3	773.5	837.5	902.6	965.3	1020.7	1060.0	1096.9	1125.2
50°	468.5	526.3	598.9	673.9	744.0	812.8	879.2	930.9	970.3	999.8	1020.7
52.5°	362.8	431.6	505.4	584.1	659.1	734.2	795.6	843.6	875.6	901.4	917.4
55°	270.5	338.2	416.9	498.0	574.3	646.8	704.6	746.5	774.7	789.5	798.1
57.5°	195.5	257.0	335.7	416.9	485.7	554.6	601.3	639.5	655.4	664.0	667.7
60°	142.7	199.2	269.3	339.4	404.6	459.9	500.5	526.3	538.6	543.5	542.3
62.5°	104.5	153.7	214.0	273.0	325.9	371.4	403.4	420.6	426.7	429.2	425.5
65°	79.9	118.0	169.7	215.2	255.8	289.0	312.4	323.4	327.1	325.9	323.4
67.5°	59.0	88.6	126.7	161.1	190.6	216.4	228.7	238.6	241.0	237.3	233.6
70°	41.8	65.2	92.2	115.6	137.7	152.5	166.0	167.2	167.2	166.0	163.6
72.5°	29.5	45.5	62.7	78.7	92.2	103.3	108.2	111.9	110.7	109.4	107.0
75°	19.7	28.3	45.5	49.2	61.5	65.2	70.1	70.1	71.3	67.6	67.6
77.5°	12.3	19.7	27.1	32.0	36.9	41.8	44.3	44.3	45.5	44.3	44.3
80°	7.4	12.3	14.7	22.1	22.1	25.8	27.1	28.3	25.8	29.5	25.8
82.5°	4.9	7.4	11.1	11.1	13.5	16.0	16.0	17.2	17.2	16.0	16.0
85°	3.7	4.9	6.1	7.4	7.4	8.6	7.4	7.4	8.6	9.8	8.6
87.5°	1.2	2.5	1.2	2.5	2.5	4.9	3.7	3.7	3.7	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P245476

CATALOG NUMBER: LSR8B40D010 EC8B40840 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2316.8	2316.8	2316.8	2316.8
2.5°	2319.3	2320.5	2319.3	2319.3
5°	2330.3	2329.1	2330.3	2327.9
7.5°	2338.9	2338.9	2337.7	2337.7
10°	2338.9	2334.0	2334.0	2334.0
12.5°	2320.5	2314.4	2310.7	2308.2
15°	2288.5	2277.5	2272.5	2271.3
17.5°	2246.7	2236.9	2230.7	2227.0
20°	2198.8	2188.9	2181.6	2182.8
22.5°	2156.9	2145.9	2141.0	2138.5
25°	2115.1	2101.6	2097.9	2095.5
27.5°	2047.5	2040.1	2036.4	2032.8
30°	1944.2	1940.5	1934.4	1943.0
32.5°	1824.9	1818.8	1813.9	1817.6
35°	1693.3	1689.6	1693.3	1690.9
37.5°	1572.8	1576.5	1581.4	1583.9
40°	1478.1	1491.7	1496.6	1499.0
42.5°	1383.5	1399.4	1409.3	1415.4
45°	1266.6	1282.6	1293.7	1301.1
47.5°	1146.1	1159.6	1170.7	1169.5
50°	1036.7	1044.0	1049.0	1053.9
52.5°	926.0	926.0	927.2	927.2
55°	800.6	798.1	796.9	798.1
57.5°	662.8	660.4	659.1	655.4
60°	537.4	530.0	525.1	525.1
62.5°	420.6	412.0	408.3	407.1
65°	316.0	314.8	307.4	306.2
67.5°	228.7	223.8	218.9	220.1
70°	161.1	153.7	153.7	151.3
72.5°	104.5	100.8	99.6	99.6
75°	65.2	65.2	62.7	67.6
77.5°	43.0	43.0	41.8	43.0
80°	25.8	25.8	25.8	24.6
82.5°	16.0	17.2	16.0	16.0
85°	8.6	9.8	7.4	11.1
87.5°	4.9	6.1	4.9	6.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)