

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: P245470

Luminaire Tested: **LSR8B40D010 EC8B40835 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P245470  
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 EC8B40835 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3500 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4496.0 lumens  
Efficiency: N/A  
Efficacy: 109.9 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

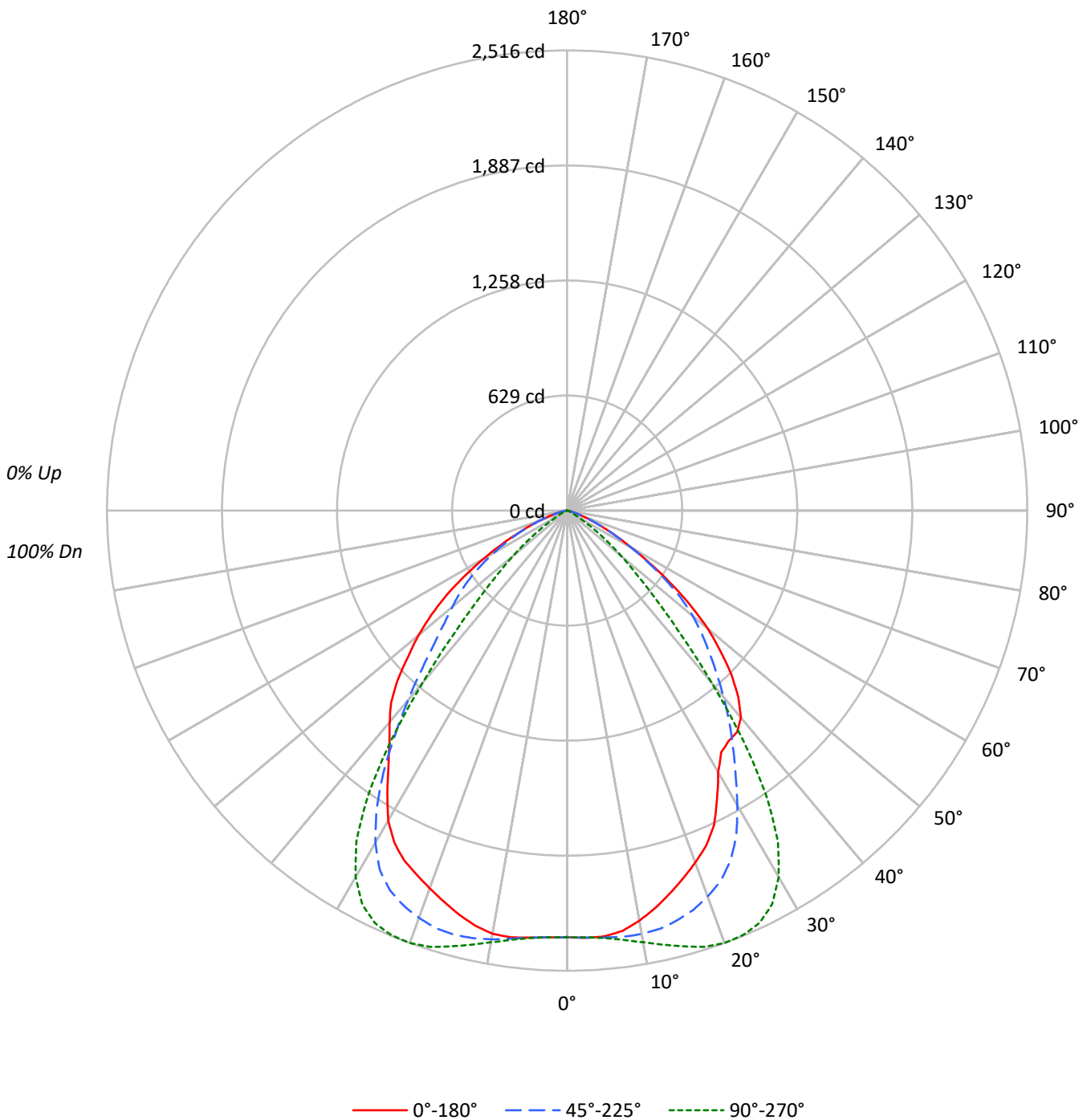
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P245470

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0WH

### Luminous Intensity Polar Plot





TEST NUMBER: P245470

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0WH

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

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

	0°	90°	180°
0°	71923	71923	71923
5°	72349	72618	72541
10°	71288	75049	73574
15°	69202	78766	72998
20°	67196	82550	72108
25°	64615	84666	71774
30°	58804	82344	69647
35°	57927	71351	64078
40°	59503	49484	60747
45°	55392	29907	57119
50°	48045	18470	50899
55°	36870	9650	43197
60°	25119	3892	32600
65°	15629	1985	22488
70°	8484	1226	13731
75°	4420	584	8114
80°	1971	657	4386
85°	1309	425	3927



TEST NUMBER: P245470

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0WH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	224.3	5.0
10°-20°	664.5	14.8
20°-30°	1013.7	22.5
30°-40°	1057.8	23.5
40°-50°	794.6	17.7
50°-60°	488.9	10.9
60°-70°	199.0	4.4
70°-80°	46.9	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°	1902.5	42.3
0°-40°	2960.3	65.8
0°-60°	4243.7	94.4
0°-90°	4496.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4496.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2332	2332	2332	2332	2332	
5°	2337	2344	2346	2344	2344	221
15°	2168	2320	2467	2399	2287	611
25°	1899	2112	2488	2292	2110	863
35°	1539	1582	1895	1752	1702	972
45°	1270	1099	686	1024	1310	969
55°	686	651	180	651	804	616
65°	214	217	27	291	308	223
75°	37	37	5	66	68	45
85°	4	4	1	9	11	5
90°	0	0	0	0	0	



TEST NUMBER: P245470

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0WH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4
2.5°	2338.6	2334.9	2338.6	2338.6	2339.8	2337.3	2338.6	2339.8	2337.3	2337.3	2337.3
5°	2337.3	2334.9	2337.3	2336.1	2338.6	2338.6	2341.1	2341.1	2343.5	2343.5	2347.2
7.5°	2317.5	2312.6	2317.5	2321.2	2323.7	2328.7	2334.9	2339.8	2344.8	2349.7	2355.9
10°	2276.7	2276.7	2280.4	2287.8	2295.2	2303.9	2315.0	2327.4	2339.8	2350.9	2362.1
12.5°	2225.9	2222.2	2229.6	2239.5	2250.7	2264.3	2281.6	2300.2	2320.0	2342.3	2359.6
15°	2167.7	2164.0	2172.7	2182.6	2196.2	2216.0	2237.1	2261.8	2290.3	2320.0	2348.5
17.5°	2108.3	2107.1	2115.7	2129.4	2140.5	2161.5	2188.8	2218.5	2250.7	2290.3	2327.4
20°	2047.7	2046.4	2055.1	2066.2	2081.1	2100.9	2128.1	2162.8	2201.1	2245.7	2289.0
22.5°	1984.5	1985.7	1993.2	2005.5	2017.9	2039.0	2067.4	2102.1	2144.2	2192.5	2240.8
25°	1899.1	1892.9	1902.8	1915.2	1936.2	1953.5	1980.8	2017.9	2061.3	2112.0	2169.0
27.5°	1775.3	1774.0	1782.7	1793.8	1812.4	1833.5	1863.2	1901.6	1947.4	2003.1	2058.8
30°	1651.5	1654.0	1657.7	1668.8	1681.2	1702.2	1732.0	1764.2	1807.5	1860.7	1920.1
32.5°	1567.3	1567.3	1572.3	1579.7	1588.3	1599.5	1620.5	1644.0	1677.5	1714.6	1757.9
35°	1538.8	1533.9	1538.8	1540.1	1541.3	1543.8	1547.5	1554.9	1566.0	1582.2	1598.2
37.5°	1526.5	1522.7	1522.7	1517.8	1511.6	1504.2	1494.3	1483.1	1470.7	1454.6	1442.3
40°	1478.2	1475.7	1473.2	1468.3	1454.6	1439.8	1423.7	1397.7	1369.2	1329.6	1290.0
42.5°	1385.3	1382.8	1381.6	1371.7	1359.3	1342.0	1323.4	1296.2	1260.3	1209.5	1152.6
45°	1270.2	1265.2	1261.5	1252.9	1244.2	1229.3	1212.0	1187.2	1151.3	1099.3	1031.2
47.5°	1136.5	1134.0	1132.8	1129.1	1120.4	1111.7	1100.6	1080.8	1048.6	999.0	928.5
50°	1001.5	996.6	999.0	997.8	994.1	987.9	980.5	966.9	942.1	897.5	833.2
52.5°	846.8	846.8	845.6	849.3	850.5	849.3	850.5	835.7	814.6	781.2	726.7
55°	685.8	685.8	689.6	694.5	699.5	700.7	699.5	693.3	678.4	651.2	602.9
57.5°	534.8	532.3	539.8	547.2	552.2	557.1	553.4	548.4	539.8	517.5	480.3
60°	407.3	407.3	412.2	417.2	422.1	427.1	425.9	424.6	417.2	402.3	372.6
62.5°	299.6	300.8	300.8	304.6	309.5	314.5	318.2	314.5	310.7	300.8	281.0
65°	214.2	212.9	214.2	217.9	221.6	226.6	229.0	227.8	224.1	216.6	201.8
67.5°	143.6	142.4	147.3	148.6	151.0	156.0	154.8	156.0	154.8	148.6	136.2
70°	94.1	91.6	94.1	92.8	96.6	97.8	100.3	101.5	100.3	96.6	92.8
72.5°	58.2	56.9	58.2	59.4	60.7	61.9	64.4	64.4	63.1	60.7	55.7
75°	37.1	33.4	34.7	32.2	34.7	34.7	37.1	38.4	37.1	37.1	34.7
77.5°	22.3	22.3	22.3	22.3	22.3	22.3	22.3	23.5	24.7	22.3	21.1
80°	11.1	11.1	12.4	12.4	12.4	13.6	12.4	12.4	12.4	13.6	9.9
82.5°	8.7	7.4	7.4	7.4	8.7	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



TEST NUMBER: P245470

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4
2.5°	2338.6	2336.1	2336.1	2334.9	2337.3	2334.9	2336.1	2334.9	2334.9	2337.3	2334.9
5°	2347.2	2348.5	2346.0	2344.8	2348.5	2348.5	2348.5	2346.0	2346.0	2347.2	2346.0
7.5°	2359.6	2362.1	2363.3	2364.6	2367.0	2368.3	2368.3	2367.0	2365.8	2369.5	2364.6
10°	2373.2	2377.0	2384.4	2388.1	2394.3	2394.3	2396.8	2396.8	2394.3	2396.8	2395.5
12.5°	2368.3	2390.6	2402.9	2411.6	2420.3	2427.7	2430.2	2431.4	2430.2	2435.1	2430.2
15°	2377.0	2395.5	2415.3	2430.2	2446.3	2454.9	2457.4	2467.3	2469.8	2471.0	2463.6
17.5°	2363.3	2396.8	2417.8	2440.1	2463.6	2479.7	2494.5	2500.8	2502.0	2504.5	2494.5
20°	2332.4	2369.5	2401.7	2433.9	2461.1	2485.9	2498.3	2515.6	2510.7	2520.6	2506.9
22.5°	2290.3	2332.4	2373.2	2415.3	2443.8	2473.5	2499.5	2511.9	2518.1	2518.1	2503.2
25°	2223.4	2273.0	2317.5	2360.8	2404.2	2440.1	2469.8	2488.4	2492.1	2490.9	2473.5
27.5°	2119.4	2172.7	2224.7	2274.2	2327.4	2369.5	2404.2	2426.5	2432.7	2432.7	2414.1
30°	1975.8	2032.8	2083.5	2143.0	2197.4	2244.5	2292.8	2312.6	2323.7	2323.7	2302.7
32.5°	1805.0	1853.3	1900.3	1958.5	2017.9	2071.2	2117.0	2144.2	2157.8	2156.6	2138.0
35°	1619.3	1642.8	1678.7	1722.0	1775.3	1824.8	1869.4	1895.4	1918.9	1917.6	1900.3
37.5°	1433.6	1427.4	1431.1	1447.2	1480.6	1515.3	1550.0	1574.7	1594.5	1603.2	1599.5
40°	1251.6	1219.4	1188.5	1177.3	1179.8	1192.2	1210.8	1229.3	1251.6	1262.8	1267.7
42.5°	1088.2	1033.7	979.2	938.4	914.9	907.4	916.1	922.3	935.9	952.0	968.1
45°	957.0	883.9	812.1	749.0	709.4	685.8	680.9	685.8	693.3	709.4	730.4
47.5°	849.3	763.8	683.4	612.8	554.6	523.7	515.0	512.5	520.0	534.8	563.3
50°	753.9	668.5	579.4	497.7	437.0	402.3	390.0	385.0	393.7	404.8	430.8
52.5°	649.9	565.8	474.2	394.9	331.8	295.9	282.3	274.8	279.8	294.6	320.6
55°	537.3	459.3	376.3	294.6	234.0	200.6	184.4	179.5	184.4	200.6	226.6
57.5°	424.6	359.0	289.7	212.9	158.5	125.0	108.9	104.0	117.6	123.8	151.0
60°	331.8	278.6	219.1	156.0	108.9	82.9	66.9	63.1	69.3	80.5	102.7
62.5°	248.8	215.4	168.4	111.4	80.5	53.2	44.6	40.9	44.6	53.2	70.6
65°	180.8	154.8	117.6	81.7	54.5	39.6	29.7	27.2	31.0	37.1	52.0
67.5°	123.8	104.0	81.7	56.9	37.1	24.7	21.1	21.1	22.3	27.2	38.4
70°	80.5	68.1	52.0	37.1	24.7	18.6	16.1	13.6	16.1	19.8	26.0
72.5°	50.8	43.3	33.4	26.0	18.6	13.6	11.1	9.9	12.4	14.8	19.8
75°	31.0	23.5	17.3	13.6	9.9	9.9	9.9	4.9	6.2	9.9	12.4
77.5°	18.6	16.1	13.6	11.1	8.7	4.9	4.9	4.9	6.2	7.4	11.1
80°	9.9	8.7	6.2	6.2	4.9	3.7	4.9	3.7	2.5	6.2	7.4
82.5°	6.2	4.9	4.9	4.9	6.2	2.5	3.7	2.5	3.7	4.9	3.7
85°	3.7	3.7	3.7	2.5	6.2	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



TEST NUMBER: P245470

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4
2.5°	2336.1	2334.9	2336.1	2334.9	2334.9	2334.9	2336.1	2336.1	2334.9	2334.9	2337.3
5°	2346.0	2346.0	2346.0	2344.8	2343.5	2343.5	2346.0	2346.0	2342.3	2346.0	2346.0
7.5°	2367.0	2363.3	2367.0	2362.1	2359.6	2360.8	2362.1	2359.6	2357.1	2358.4	2358.4
10°	2394.3	2390.6	2390.6	2386.9	2383.1	2380.7	2378.2	2372.0	2365.8	2364.6	2359.6
12.5°	2426.5	2420.3	2416.6	2409.1	2402.9	2394.3	2386.9	2377.0	2364.6	2355.9	2347.2
15°	2458.7	2448.7	2440.1	2427.7	2414.1	2399.2	2383.1	2367.0	2347.2	2329.9	2315.0
17.5°	2484.6	2471.0	2454.9	2435.1	2415.3	2393.0	2369.5	2346.0	2317.5	2295.2	2277.9
20°	2493.3	2473.5	2452.5	2426.5	2400.5	2369.5	2339.8	2308.9	2276.7	2253.2	2233.3
22.5°	2482.2	2458.7	2432.7	2405.4	2370.7	2337.3	2302.7	2266.8	2238.3	2206.1	2187.5
25°	2451.2	2422.8	2394.3	2362.1	2328.7	2291.5	2254.4	2217.3	2182.6	2165.2	2141.7
27.5°	2388.1	2357.1	2326.2	2292.8	2254.4	2217.3	2178.9	2143.0	2113.3	2089.7	2076.1
30°	2276.7	2240.8	2204.9	2169.0	2135.5	2097.2	2061.3	2031.5	2001.8	1983.3	1969.7
32.5°	2105.8	2073.6	2037.7	2003.1	1972.1	1939.9	1910.2	1884.2	1863.2	1850.8	1840.9
35°	1875.6	1843.4	1816.1	1791.4	1765.4	1751.8	1733.2	1718.3	1709.7	1704.7	1703.5
37.5°	1585.9	1567.3	1558.6	1553.7	1548.7	1545.0	1547.5	1553.7	1558.6	1567.3	1577.2
40°	1276.4	1292.5	1297.4	1314.7	1330.8	1351.9	1375.4	1402.7	1424.9	1453.4	1473.2
42.5°	994.1	1023.8	1058.5	1095.6	1135.2	1173.6	1220.7	1264.0	1303.6	1339.5	1370.5
45°	763.8	809.6	861.6	914.9	968.1	1023.8	1080.8	1134.0	1181.0	1219.4	1251.6
47.5°	595.5	646.2	713.1	778.7	843.1	908.7	971.8	1027.5	1067.1	1104.3	1132.8
50°	471.7	529.9	602.9	678.4	749.0	818.3	885.2	937.2	976.8	1006.5	1027.5
52.5°	365.2	434.5	508.8	588.1	663.6	739.1	801.0	849.3	881.5	907.4	923.5
55°	272.4	340.4	419.7	501.4	578.1	651.2	709.4	751.5	779.9	794.8	803.5
57.5°	196.8	258.8	338.0	419.7	489.0	558.3	605.4	643.8	659.8	668.5	672.2
60°	143.6	200.6	271.1	341.7	407.3	463.0	503.9	529.9	542.3	547.2	545.9
62.5°	105.2	154.8	215.4	274.8	328.1	373.9	406.1	423.4	429.6	432.1	428.4
65°	80.5	118.8	170.8	216.6	257.5	290.9	314.5	325.6	329.3	328.1	325.6
67.5°	59.4	89.1	127.5	162.2	191.9	217.9	230.3	240.2	242.6	238.9	235.2
70°	42.1	65.6	92.8	116.4	138.6	153.5	167.1	168.4	168.4	167.1	164.7
72.5°	29.7	45.8	63.1	79.2	92.8	104.0	108.9	112.7	111.4	110.2	107.7
75°	19.8	28.5	45.8	49.5	61.9	65.6	70.6	70.6	71.8	68.1	68.1
77.5°	12.4	19.8	27.2	32.2	37.1	42.1	44.6	44.6	45.8	44.6	44.6
80°	7.4	12.4	14.8	22.3	22.3	26.0	27.2	28.5	26.0	29.7	26.0
82.5°	4.9	7.4	11.1	11.1	13.6	16.1	16.1	17.3	17.3	16.1	16.1
85°	3.7	4.9	6.2	7.4	7.4	8.7	7.4	7.4	8.7	9.9	8.7
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: P245470

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2332.4	2332.4	2332.4	2332.4
2.5°	2334.9	2336.1	2334.9	2334.9
5°	2346.0	2344.8	2346.0	2343.5
7.5°	2354.7	2354.7	2353.4	2353.4
10°	2354.7	2349.7	2349.7	2349.7
12.5°	2336.1	2329.9	2326.2	2323.7
15°	2303.9	2292.8	2287.8	2286.6
17.5°	2261.8	2251.9	2245.7	2242.0
20°	2213.5	2203.6	2196.2	2197.4
22.5°	2171.4	2160.3	2155.3	2152.9
25°	2129.4	2115.7	2112.0	2109.5
27.5°	2061.3	2053.8	2050.1	2046.4
30°	1957.3	1953.5	1947.4	1956.0
32.5°	1837.2	1831.0	1826.0	1829.8
35°	1704.7	1701.0	1704.7	1702.2
37.5°	1583.4	1587.1	1592.1	1594.5
40°	1488.1	1501.7	1506.6	1509.1
42.5°	1392.7	1408.8	1418.7	1424.9
45°	1275.1	1291.2	1302.4	1309.8
47.5°	1153.8	1167.4	1178.6	1177.3
50°	1043.6	1051.1	1056.0	1061.0
52.5°	932.2	932.2	933.4	933.4
55°	805.9	803.5	802.2	803.5
57.5°	667.3	664.8	663.6	659.8
60°	541.0	533.6	528.6	528.6
62.5°	423.4	414.7	411.0	409.8
65°	318.2	316.9	309.5	308.2
67.5°	230.3	225.3	220.4	221.6
70°	162.2	154.8	154.8	152.3
72.5°	105.2	101.5	100.3	100.3
75°	65.6	65.6	63.1	68.1
77.5°	43.3	43.3	42.1	43.3
80°	26.0	26.0	26.0	24.7
82.5°	16.1	17.3	16.1	16.1
85°	8.7	9.9	7.4	11.1
87.5°	4.9	6.2	4.9	6.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)