

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: P244174

Luminaire Tested: **LSR8B40D010 EC8B40835 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244174
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 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4623.0 lumens
Efficiency: N/A
Efficacy: 113.0 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

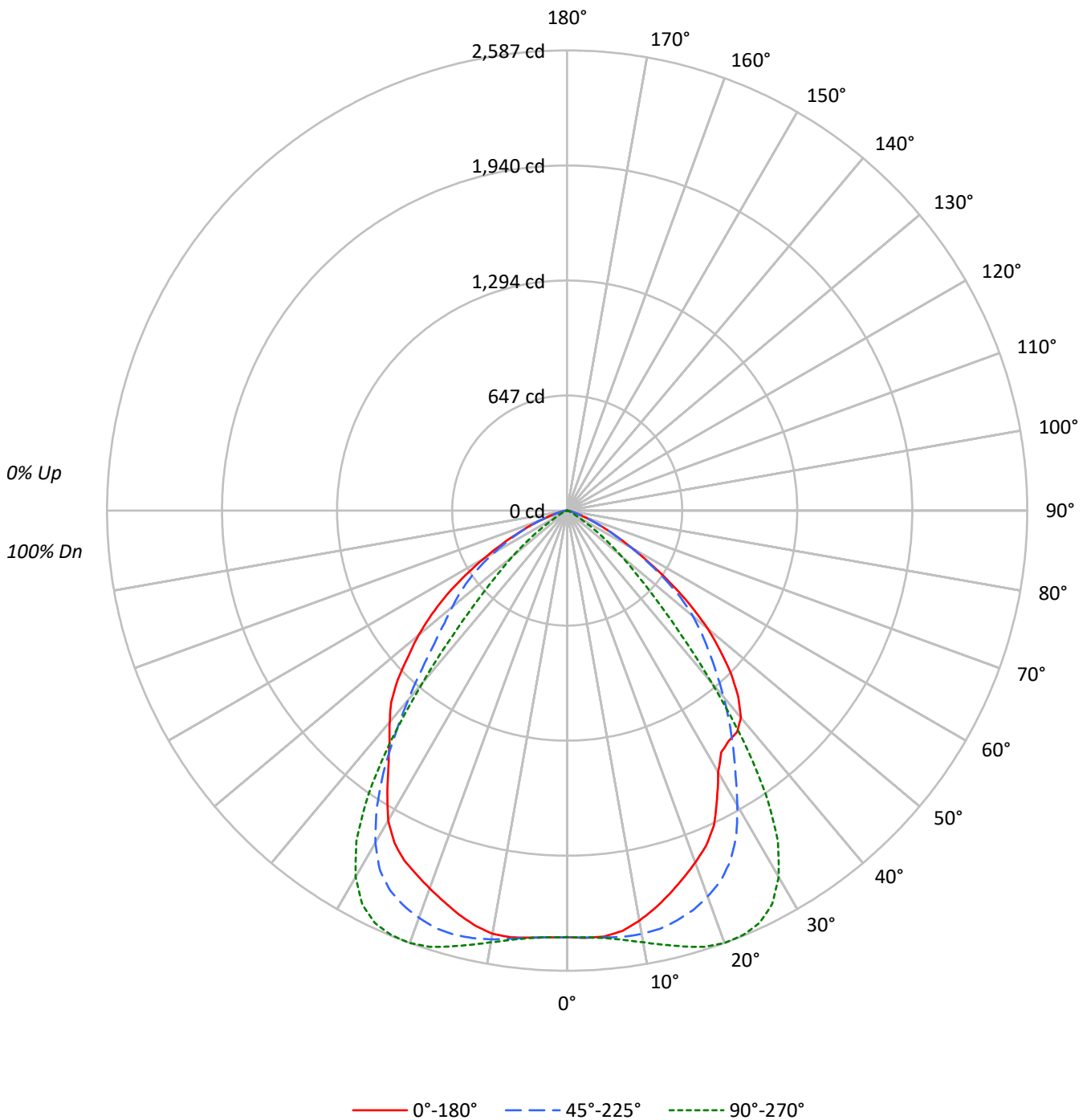
Input Watts (W): 40.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P244174

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0LI

Luminous Intensity Polar Plot





TEST NUMBER: P244174

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0LI

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°	73952	73952	73952
5°	74395	74671	74590
10°	73301	77168	75653
15°	71159	80991	75060
20°	69093	84883	74146
25°	66439	87057	73802
30°	60464	84669	71616
35°	59564	73365	65889
40°	61182	50885	62462
45°	56958	30753	58733
50°	49402	18992	52334
55°	37913	9924	44418
60°	25828	4003	33525
65°	16067	2043	23130
70°	8718	1262	14119
75°	4551	608	8340
80°	2042	675	4511
85°	1344	460	4069



TEST NUMBER: P244174

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.6	5.0
10°-20°	683.2	14.8
20°-30°	1042.3	22.5
30°-40°	1087.7	23.5
40°-50°	817.0	17.7
50°-60°	502.7	10.9
60°-70°	204.6	4.4
70°-80°	48.2	1.0
80°-90°	6.6	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°	1956.2	42.3
0°-40°	3043.9	65.8
0°-60°	4363.6	94.4
0°-90°	4623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4623.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2398	2398	2398	2398	2398	
5°	2403	2410	2412	2410	2410	227
15°	2229	2386	2537	2467	2351	628
25°	1953	2172	2559	2356	2169	888
35°	1582	1627	1949	1801	1750	999
45°	1306	1130	705	1053	1347	996
55°	705	670	185	670	826	634
65°	220	223	28	299	317	230
75°	38	38	5	68	70	46
85°	4	4	1	9	12	5
90°	0	0	0	0	0	



TEST NUMBER: P244174

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2404.6	2400.8	2404.6	2404.6	2405.9	2403.4	2404.6	2405.9	2403.4	2403.4	2403.4
5°	2403.4	2400.8	2403.4	2402.1	2404.6	2404.6	2407.2	2407.2	2409.7	2409.7	2413.5
7.5°	2383.0	2377.9	2383.0	2386.8	2389.3	2394.4	2400.8	2405.9	2411.0	2416.1	2422.5
10°	2341.0	2341.0	2344.8	2352.4	2360.1	2369.0	2380.4	2393.2	2405.9	2417.3	2428.8
12.5°	2288.8	2285.0	2292.6	2302.8	2314.2	2328.3	2346.1	2365.2	2385.5	2408.4	2426.3
15°	2229.0	2225.1	2234.0	2244.2	2258.2	2278.6	2300.3	2325.7	2355.0	2385.5	2414.8
17.5°	2167.9	2166.6	2175.5	2189.5	2201.0	2222.6	2250.6	2281.1	2314.2	2355.0	2393.2
20°	2105.5	2104.2	2113.1	2124.6	2139.9	2160.2	2188.2	2223.9	2263.3	2309.2	2353.7
22.5°	2040.6	2041.8	2049.5	2062.2	2074.9	2096.6	2125.8	2161.5	2204.8	2254.4	2304.1
25°	1952.7	1946.4	1956.5	1969.3	1990.9	2008.7	2036.8	2074.9	2119.5	2171.7	2230.2
27.5°	1825.4	1824.1	1833.1	1844.5	1863.6	1885.3	1915.8	1955.3	2002.4	2059.6	2116.9
30°	1698.1	1700.7	1704.5	1716.0	1728.7	1750.3	1780.9	1814.0	1858.5	1913.3	1974.4
32.5°	1611.6	1611.6	1616.7	1624.3	1633.2	1644.7	1666.3	1690.5	1724.9	1763.1	1807.6
35°	1582.3	1577.2	1582.3	1583.6	1584.8	1587.4	1591.2	1598.9	1610.3	1626.9	1643.4
37.5°	1569.6	1565.7	1565.7	1560.7	1554.3	1546.7	1536.5	1525.0	1512.3	1495.7	1483.0
40°	1519.9	1517.4	1514.8	1509.7	1495.7	1480.5	1463.9	1437.2	1407.9	1367.1	1326.4
42.5°	1424.5	1421.9	1420.6	1410.4	1397.7	1379.9	1360.8	1332.8	1295.9	1243.7	1185.1
45°	1306.1	1301.0	1297.2	1288.3	1279.3	1264.1	1246.2	1220.8	1183.8	1130.4	1060.4
47.5°	1168.6	1166.0	1164.8	1161.0	1152.0	1143.1	1131.7	1111.3	1078.2	1027.3	954.7
50°	1029.8	1024.7	1027.3	1026.0	1022.2	1015.8	1008.2	994.2	968.7	922.9	856.7
52.5°	870.7	870.7	869.4	873.2	874.5	873.2	874.5	859.3	837.6	803.2	747.2
55°	705.2	705.2	709.0	714.1	719.2	720.5	719.2	712.9	697.6	669.6	619.9
57.5°	549.9	547.4	555.0	562.6	567.8	572.8	569.0	563.9	555.0	532.1	493.9
60°	418.8	418.8	423.9	429.0	434.1	439.2	437.9	436.6	429.0	413.7	383.2
62.5°	308.0	309.3	309.3	313.2	318.2	323.3	327.1	323.3	319.5	309.3	289.0
65°	220.2	218.9	220.2	224.0	227.9	233.0	235.5	234.2	230.4	222.8	207.5
67.5°	147.7	146.4	151.5	152.7	155.3	160.4	159.1	160.4	159.1	152.7	140.0
70°	96.7	94.2	96.7	95.5	99.3	100.6	103.1	104.4	103.1	99.3	95.5
72.5°	59.8	58.6	59.8	61.1	62.4	63.6	66.2	66.2	64.9	62.4	57.3
75°	38.2	34.4	35.6	33.1	35.6	35.6	38.2	39.5	38.2	38.2	35.6
77.5°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	24.2	25.4	22.9	21.6
80°	11.5	11.5	12.7	12.7	12.7	14.0	12.7	12.7	12.7	14.0	10.2
82.5°	8.9	7.6	7.6	7.6	8.9	7.6	7.6	7.6	7.6	7.6	7.6
85°	3.8	5.1	3.8	2.6	3.8	3.8	5.1	3.8	3.8	3.8	5.1
87.5°	1.3	1.3	0.0	0.0	0.0	1.3	0.0	1.3	1.3	2.6	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: P244174

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2404.6	2402.1	2402.1	2400.8	2403.4	2400.8	2402.1	2400.8	2400.8	2403.4	2400.8
5°	2413.5	2414.8	2412.3	2411.0	2414.8	2414.8	2414.8	2412.3	2412.3	2413.5	2412.3
7.5°	2426.3	2428.8	2430.1	2431.4	2433.9	2435.2	2435.2	2433.9	2432.6	2436.5	2431.4
10°	2440.3	2444.1	2451.7	2455.6	2461.9	2461.9	2464.5	2464.5	2461.9	2464.5	2463.2
12.5°	2435.2	2458.1	2470.8	2479.7	2488.6	2496.3	2498.8	2500.1	2498.8	2503.9	2498.8
15°	2444.1	2463.2	2483.6	2498.8	2515.4	2524.3	2526.8	2537.0	2539.6	2540.8	2533.2
17.5°	2430.1	2464.5	2486.1	2509.0	2533.2	2549.7	2565.0	2571.4	2572.7	2575.2	2565.0
20°	2398.2	2436.5	2469.5	2502.7	2530.7	2556.1	2568.8	2586.7	2581.6	2591.8	2577.8
22.5°	2355.0	2398.2	2440.3	2483.6	2512.8	2543.4	2570.1	2582.8	2589.2	2589.2	2573.9
25°	2286.2	2337.2	2383.0	2427.5	2472.1	2509.0	2539.6	2558.7	2562.5	2561.2	2543.4
27.5°	2179.3	2234.0	2287.5	2338.4	2393.2	2436.5	2472.1	2495.0	2501.4	2501.4	2482.3
30°	2031.6	2090.2	2142.4	2203.5	2259.5	2307.9	2357.5	2377.9	2389.3	2389.3	2367.7
32.5°	1856.0	1905.6	1954.0	2013.8	2074.9	2129.7	2176.8	2204.8	2218.8	2217.5	2198.4
35°	1665.0	1689.2	1726.2	1770.7	1825.4	1876.3	1922.2	1948.9	1973.1	1971.8	1954.0
37.5°	1474.1	1467.7	1471.6	1488.1	1522.4	1558.1	1593.7	1619.2	1639.6	1648.5	1644.7
40°	1287.0	1253.9	1222.0	1210.6	1213.1	1225.9	1245.0	1264.1	1287.0	1298.4	1303.5
42.5°	1118.9	1062.9	1006.9	964.9	940.7	933.1	942.0	948.3	962.4	978.9	995.5
45°	984.0	908.9	835.1	770.1	729.4	705.2	700.1	705.2	712.9	729.4	751.1
47.5°	873.2	785.4	702.7	630.1	570.3	538.5	529.6	527.0	534.6	549.9	579.2
50°	775.2	687.4	595.8	511.7	449.4	413.7	401.0	395.9	404.8	416.3	443.0
52.5°	668.3	581.7	487.5	406.1	341.2	304.2	290.2	282.6	287.7	303.0	329.7
55°	552.5	472.3	387.0	303.0	240.6	206.2	189.7	184.6	189.7	206.2	233.0
57.5°	436.6	369.2	297.9	218.9	162.9	128.6	112.0	106.9	120.9	127.3	155.3
60°	341.2	286.4	225.3	160.4	112.0	85.3	68.7	64.9	71.3	82.7	105.7
62.5°	255.9	221.5	173.1	114.6	82.7	54.7	45.8	42.0	45.8	54.7	72.6
65°	185.9	159.1	120.9	84.0	56.0	40.7	30.6	28.0	31.8	38.2	53.5
67.5°	127.3	106.9	84.0	58.6	38.2	25.4	21.6	21.6	22.9	28.0	39.5
70°	82.7	70.0	53.5	38.2	25.4	19.1	16.5	14.0	16.5	20.4	26.7
72.5°	52.2	44.5	34.4	26.7	19.1	14.0	11.5	10.2	12.7	15.3	20.4
75°	31.8	24.2	17.8	14.0	10.2	10.2	10.2	5.1	6.4	10.2	12.7
77.5°	19.1	16.5	14.0	11.5	8.9	5.1	5.1	5.1	6.4	7.6	11.5
80°	10.2	8.9	6.4	6.4	5.1	3.8	5.1	3.8	2.6	6.4	7.6
82.5°	6.4	5.1	5.1	5.1	6.4	2.6	3.8	2.6	3.8	5.1	3.8
85°	3.8	3.8	3.8	2.6	6.4	2.6	2.6	1.3	1.3	2.6	2.6
87.5°	0.0	1.3	1.3	0.0	1.3	0.0	1.3	1.3	1.3	1.3	1.3
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: P244174

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2	2398.2
2.5°	2402.1	2400.8	2402.1	2400.8	2400.8	2400.8	2402.1	2402.1	2400.8	2400.8	2403.4
5°	2412.3	2412.3	2412.3	2411.0	2409.7	2409.7	2412.3	2412.3	2408.4	2412.3	2412.3
7.5°	2433.9	2430.1	2433.9	2428.8	2426.3	2427.5	2428.8	2426.3	2423.7	2425.0	2425.0
10°	2461.9	2458.1	2458.1	2454.3	2450.5	2447.9	2445.4	2439.0	2432.6	2431.4	2426.3
12.5°	2495.0	2488.6	2484.8	2477.2	2470.8	2461.9	2454.3	2444.1	2431.4	2422.5	2413.5
15°	2528.1	2517.9	2509.0	2496.3	2482.3	2467.0	2450.5	2433.9	2413.5	2395.7	2380.4
17.5°	2554.8	2540.8	2524.3	2503.9	2483.6	2460.6	2436.5	2412.3	2383.0	2360.1	2342.2
20°	2563.7	2543.4	2521.7	2495.0	2468.3	2436.5	2405.9	2374.1	2341.0	2316.8	2296.4
22.5°	2552.3	2528.1	2501.4	2473.4	2437.7	2403.4	2367.7	2330.8	2301.5	2268.4	2249.3
25°	2520.5	2491.2	2461.9	2428.8	2394.4	2356.3	2318.1	2279.9	2244.2	2226.4	2202.2
27.5°	2455.6	2423.7	2391.9	2357.5	2318.1	2279.9	2240.4	2203.5	2173.0	2148.8	2134.8
30°	2341.0	2304.1	2267.1	2230.2	2195.9	2156.4	2119.5	2088.9	2058.4	2039.3	2025.3
32.5°	2165.3	2132.2	2095.3	2059.6	2027.8	1994.7	1964.2	1937.5	1915.8	1903.1	1892.9
35°	1928.5	1895.4	1867.4	1842.0	1815.2	1801.2	1782.2	1766.9	1758.0	1752.9	1751.6
37.5°	1630.7	1611.6	1602.7	1597.6	1592.5	1588.7	1591.2	1597.6	1602.7	1611.6	1621.7
40°	1312.4	1329.0	1334.1	1351.9	1368.4	1390.1	1414.3	1442.3	1465.2	1494.4	1514.8
42.5°	1022.2	1052.7	1088.4	1126.6	1167.3	1206.8	1255.1	1299.7	1340.4	1377.3	1409.2
45°	785.4	832.5	886.0	940.7	995.5	1052.7	1111.3	1166.0	1214.4	1253.9	1287.0
47.5°	612.3	664.5	733.2	800.7	866.9	934.4	999.3	1056.5	1097.3	1135.5	1164.8
50°	485.0	544.8	619.9	697.6	770.1	841.4	910.2	963.6	1004.4	1034.9	1056.5
52.5°	375.5	446.8	523.2	604.7	682.3	760.0	823.6	873.2	906.4	933.1	949.6
55°	280.0	350.1	431.5	515.6	594.5	669.6	729.4	772.7	802.0	817.2	826.2
57.5°	202.4	266.1	347.5	431.5	502.8	574.1	622.5	661.9	678.5	687.4	691.2
60°	147.7	206.2	278.8	351.3	418.8	476.1	518.1	544.8	557.6	562.6	561.4
62.5°	108.2	159.1	221.5	282.6	337.3	384.4	417.5	435.3	441.7	444.3	440.5
65°	82.7	122.2	175.7	222.8	264.8	299.1	323.3	334.8	338.6	337.3	334.8
67.5°	61.1	91.7	131.1	166.8	197.3	224.0	236.8	247.0	249.5	245.7	241.9
70°	43.3	67.5	95.5	119.7	142.6	157.9	171.8	173.1	173.1	171.8	169.3
72.5°	30.6	47.1	64.9	81.5	95.5	106.9	112.0	115.8	114.6	113.3	110.8
75°	20.4	29.3	47.1	50.9	63.6	67.5	72.6	72.6	73.8	70.0	70.0
77.5°	12.7	20.4	28.0	33.1	38.2	43.3	45.8	45.8	47.1	45.8	45.8
80°	7.6	12.7	15.3	22.9	22.9	26.7	28.0	29.3	26.7	30.6	26.7
82.5°	5.1	7.6	11.5	11.5	14.0	16.5	16.5	17.8	17.8	16.5	16.5
85°	3.8	5.1	6.4	7.6	7.6	8.9	7.6	7.6	8.9	10.2	8.9
87.5°	1.3	2.6	1.3	2.6	2.6	5.1	3.8	3.8	3.8	5.1	5.1
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: P244174

CATALOG NUMBER: LSR8B40D010 EC8B40835 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2398.2	2398.2	2398.2	2398.2
2.5°	2400.8	2402.1	2400.8	2400.8
5°	2412.3	2411.0	2412.3	2409.7
7.5°	2421.2	2421.2	2419.9	2419.9
10°	2421.2	2416.1	2416.1	2416.1
12.5°	2402.1	2395.7	2391.9	2389.3
15°	2369.0	2357.5	2352.4	2351.2
17.5°	2325.7	2315.5	2309.2	2305.3
20°	2276.1	2265.9	2258.2	2259.5
22.5°	2232.8	2221.3	2216.2	2213.7
25°	2189.5	2175.5	2171.7	2169.1
27.5°	2119.5	2111.8	2108.0	2104.2
30°	2012.6	2008.7	2002.4	2011.3
32.5°	1889.1	1882.7	1877.6	1881.5
35°	1752.9	1749.0	1752.9	1750.3
37.5°	1628.1	1631.9	1637.0	1639.6
40°	1530.1	1544.1	1549.2	1551.7
42.5°	1432.1	1448.6	1458.8	1465.2
45°	1311.1	1327.7	1339.1	1346.8
47.5°	1186.4	1200.4	1211.8	1210.6
50°	1073.1	1080.7	1085.8	1090.9
52.5°	958.5	958.5	959.8	959.8
55°	828.7	826.2	824.9	826.2
57.5°	686.1	683.6	682.3	678.5
60°	556.3	548.7	543.6	543.6
62.5°	435.3	426.4	422.6	421.4
65°	327.1	325.9	318.2	317.0
67.5°	236.8	231.7	226.6	227.9
70°	166.8	159.1	159.1	156.6
72.5°	108.2	104.4	103.1	103.1
75°	67.5	67.5	64.9	70.0
77.5°	44.5	44.5	43.3	44.5
80°	26.7	26.7	26.7	25.4
82.5°	16.5	17.8	16.5	16.5
85°	8.9	10.2	7.6	11.5
87.5°	5.1	6.4	5.1	6.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)