

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: P246196

Luminaire Tested: **LSR8B40D010 EC8B40840 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246196
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B40D010 EC8B40840 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4382.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

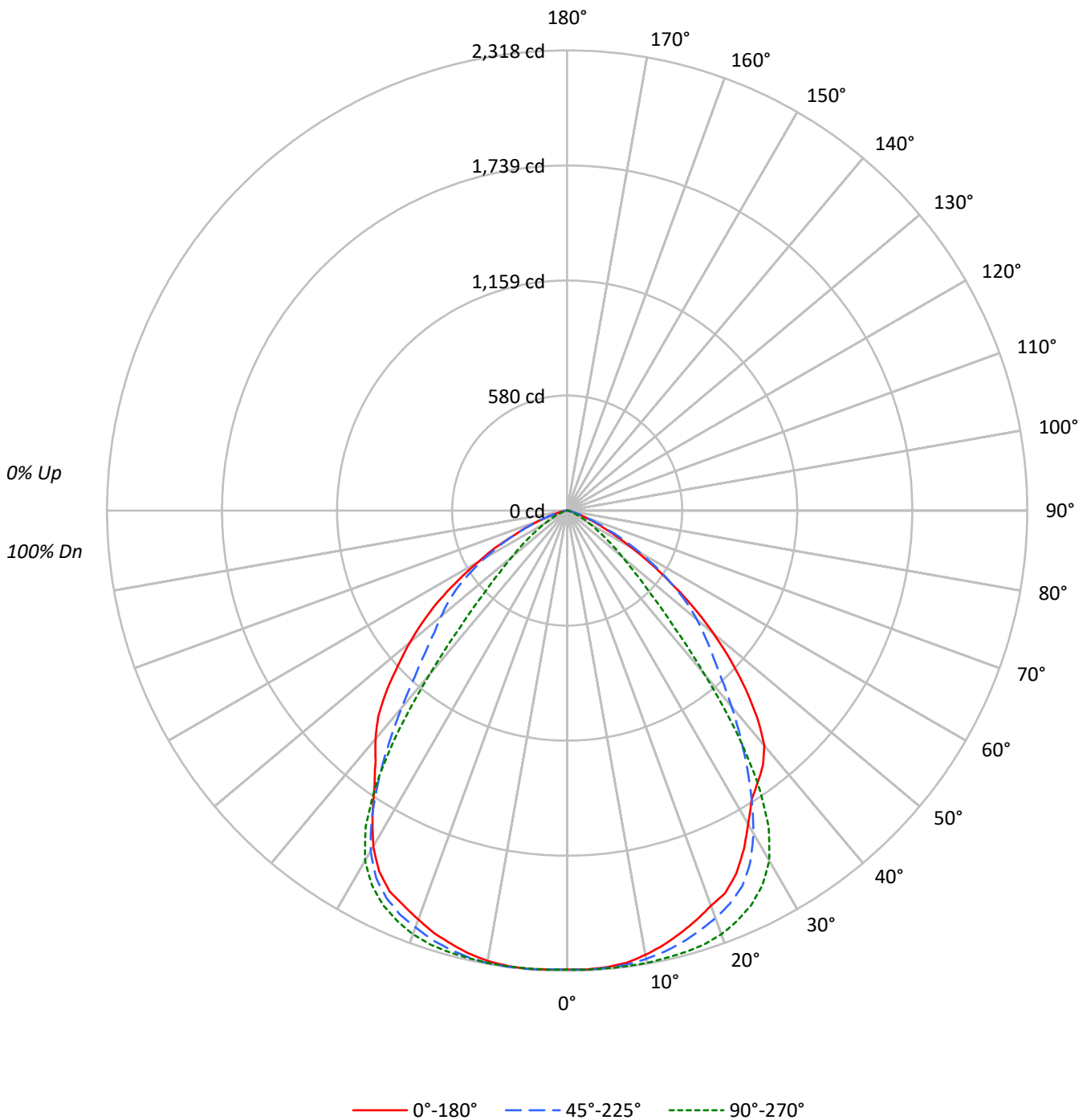
Input Watts (W): 40.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	71294	71294	71294
5°	71451	71643	71721
10°	71150	72434	72121
15°	70361	73492	72107
20°	69516	74527	71921
25°	68616	74611	71995
30°	64915	72513	69554
35°	62975	63020	63675
40°	62196	43362	60449
45°	55418	26030	56177
50°	46083	17323	49652
55°	34558	11946	42101
60°	23423	7962	31761
65°	14126	5166	21824
70°	7835	2795	13425
75°	3550	1180	6946
80°	3090	1314	4848
85°	3503	1769	4847



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.7	5.0
10°-20°	640.8	14.6
20°-30°	972.6	22.2
30°-40°	1021.5	23.3
40°-50°	765.9	17.5
50°-60°	491.4	11.2
60°-70°	210.2	4.8
70°-80°	49.7	1.1
80°-90°	9.2	0.2
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°	1834.1	41.9
0°-40°	2855.6	65.2
0°-60°	4112.9	93.9
0°-90°	4382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4382.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2312	2312	2312	2312	2312	
5°	2308	2312	2314	2318	2317	219
15°	2204	2250	2302	2287	2259	622
25°	2017	2087	2193	2153	2116	921
35°	1673	1580	1674	1654	1692	1050
45°	1271	1039	597	1009	1288	973
55°	643	643	222	670	783	583
65°	194	228	71	294	299	207
75°	30	35	10	60	58	43
85°	10	6	5	10	14	10
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°	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0
2.5°	2313.3	2315.8	2314.5	2314.5	2313.3	2314.5	2314.5	2317.0	2317.0	2314.5	2313.3
5°	2308.3	2310.8	2310.8	2308.3	2308.3	2314.5	2310.8	2313.3	2313.3	2312.0	2312.0
7.5°	2297.1	2297.1	2302.1	2298.4	2298.4	2302.1	2300.9	2303.3	2305.8	2307.1	2307.1
10°	2272.3	2274.8	2276.0	2276.0	2277.3	2281.0	2283.5	2288.5	2290.9	2293.4	2294.7
12.5°	2241.3	2245.0	2246.3	2245.0	2248.7	2253.7	2259.9	2266.1	2269.9	2274.8	2278.5
15°	2204.0	2204.0	2206.5	2210.3	2212.8	2220.2	2226.4	2233.8	2243.8	2250.0	2256.2
17.5°	2163.1	2165.6	2169.3	2169.3	2174.3	2186.7	2190.4	2201.6	2212.8	2219.0	2231.4
20°	2118.4	2120.9	2124.6	2127.1	2133.3	2143.3	2150.7	2160.6	2173.0	2184.2	2196.6
22.5°	2083.7	2078.7	2081.2	2083.7	2089.9	2098.6	2107.3	2119.7	2132.1	2143.3	2155.7
25°	2016.7	2017.9	2021.6	2024.1	2031.6	2039.0	2048.9	2063.8	2075.0	2087.4	2101.0
27.5°	1926.1	1927.3	1933.5	1933.5	1939.7	1952.1	1958.3	1970.7	1985.7	1998.0	2014.2
30°	1823.1	1825.5	1825.5	1830.5	1834.2	1840.4	1846.6	1859.1	1866.5	1877.7	1900.0
32.5°	1728.8	1731.2	1730.0	1728.8	1725.0	1723.8	1722.5	1725.0	1727.5	1731.2	1739.9
35°	1672.9	1666.7	1661.7	1653.1	1643.1	1630.7	1619.5	1604.7	1591.0	1579.8	1567.4
37.5°	1619.5	1618.3	1610.9	1598.4	1578.6	1556.3	1530.2	1497.9	1465.6	1430.9	1397.4
40°	1545.1	1541.3	1535.1	1517.8	1495.4	1468.1	1433.4	1393.7	1341.5	1288.2	1233.6
42.5°	1418.5	1419.7	1412.3	1398.6	1377.5	1351.5	1315.5	1272.1	1216.2	1152.9	1082.2
45°	1270.8	1270.8	1268.3	1257.1	1242.3	1221.2	1193.9	1157.9	1103.3	1038.7	963.0
47.5°	1116.9	1118.2	1114.4	1112.0	1105.7	1092.1	1072.3	1045.0	1006.5	944.4	868.7
50°	960.6	960.6	966.8	965.5	965.5	960.6	951.9	935.7	902.2	852.6	781.9
52.5°	804.2	806.7	810.4	815.4	821.5	831.5	821.5	814.1	793.0	754.5	693.7
55°	642.8	645.3	651.5	660.2	667.7	677.6	680.1	680.1	668.9	642.8	596.9
57.5°	505.1	501.4	506.4	513.8	523.7	533.6	541.1	549.8	548.5	531.2	493.9
60°	379.8	381.0	384.7	392.2	399.6	408.3	418.2	425.7	429.4	420.7	397.1
62.5°	276.8	276.8	281.7	289.1	292.9	305.3	311.5	315.2	318.9	317.7	302.8
65°	193.6	196.1	198.6	202.3	206.0	213.4	217.2	224.6	227.1	228.4	217.2
67.5°	136.5	132.8	135.3	137.7	141.5	146.5	153.9	153.9	157.6	157.6	150.2
70°	86.9	86.9	88.1	91.8	94.3	95.6	98.1	100.5	104.2	103.0	103.0
72.5°	58.3	57.1	58.3	59.6	60.8	64.5	64.5	65.8	68.3	69.5	64.5
75°	29.8	31.0	33.5	32.3	36.0	33.5	34.7	38.5	37.2	34.7	34.7
77.5°	24.8	24.8	24.8	23.6	26.1	26.1	24.8	27.3	26.1	26.1	24.8
80°	17.4	18.6	17.4	16.1	17.4	16.1	16.1	16.1	16.1	16.1	14.9
82.5°	13.7	11.2	12.4	11.2	12.4	12.4	11.2	9.9	9.9	11.2	9.9
85°	9.9	7.4	8.7	8.7	7.4	7.4	7.4	7.4	7.4	6.2	6.2
87.5°	6.2	3.7	3.7	3.7	5.0	5.0	5.0	3.7	5.0	5.0	2.5
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°	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0
2.5°	2315.8	2314.5	2317.0	2315.8	2315.8	2314.5	2315.8	2314.5	2317.0	2312.0	2313.3
5°	2315.8	2313.3	2314.5	2315.8	2317.0	2314.5	2314.5	2314.5	2317.0	2314.5	2315.8
7.5°	2310.8	2309.5	2313.3	2315.8	2314.5	2313.3	2315.8	2314.5	2317.0	2315.8	2318.2
10°	2300.9	2302.1	2304.6	2308.3	2309.5	2310.8	2313.3	2313.3	2317.0	2312.0	2314.5
12.5°	2286.0	2290.9	2297.1	2299.6	2304.6	2304.6	2307.1	2308.3	2310.8	2309.5	2313.3
15°	2267.4	2273.6	2281.0	2287.2	2293.4	2297.1	2300.9	2302.1	2305.8	2302.1	2303.3
17.5°	2245.0	2252.5	2263.6	2271.1	2281.0	2284.7	2289.7	2292.2	2295.9	2293.4	2294.7
20°	2214.0	2222.7	2235.1	2246.3	2252.5	2261.1	2267.4	2271.1	2273.6	2271.1	2272.3
22.5°	2170.6	2183.0	2199.1	2207.8	2220.2	2227.6	2228.9	2237.6	2243.8	2237.6	2240.1
25°	2119.7	2132.1	2144.5	2163.1	2174.3	2183.0	2191.7	2192.9	2199.1	2197.9	2196.6
27.5°	2035.3	2051.4	2072.5	2087.4	2102.3	2116.0	2125.9	2128.3	2134.6	2132.1	2133.3
30°	1919.9	1937.3	1957.1	1980.7	2001.8	2015.4	2027.8	2036.5	2042.7	2039.0	2037.8
32.5°	1756.1	1773.4	1794.5	1818.1	1842.9	1862.8	1877.7	1888.8	1896.3	1893.8	1887.6
35°	1568.7	1573.6	1587.3	1605.9	1627.0	1648.1	1661.7	1674.1	1682.8	1685.3	1685.3
37.5°	1376.3	1360.2	1350.2	1350.2	1362.6	1371.3	1383.7	1391.2	1404.8	1409.8	1413.5
40°	1190.1	1152.9	1118.2	1092.1	1074.7	1073.5	1073.5	1077.2	1089.6	1105.7	1120.7
42.5°	1023.8	964.3	910.9	862.5	827.8	807.9	799.2	800.5	810.4	825.3	850.1
45°	891.1	816.6	749.6	691.2	644.1	613.1	598.2	596.9	604.4	621.7	649.1
47.5°	788.1	708.6	632.9	565.9	515.0	481.5	464.1	459.2	464.1	480.3	512.5
50°	702.4	620.5	542.3	472.8	418.2	383.5	367.3	361.1	367.3	381.0	413.3
52.5°	623.0	538.6	465.4	398.4	340.0	310.2	292.9	289.1	292.9	309.0	335.1
55°	531.2	459.2	387.2	320.2	269.3	239.5	225.9	222.2	225.9	240.8	268.1
57.5°	440.6	378.5	315.2	254.4	211.0	184.9	172.5	167.5	176.2	186.1	218.4
60°	356.2	306.5	253.2	199.8	163.8	140.2	130.3	129.1	131.5	144.0	166.3
62.5°	279.2	238.3	196.1	152.6	122.9	112.9	100.5	99.3	101.8	109.2	126.6
65°	201.1	175.0	142.7	111.7	88.1	74.5	69.5	70.8	73.2	78.2	94.3
67.5°	140.2	121.6	99.3	78.2	60.8	54.6	49.6	48.4	49.6	58.3	67.0
70°	94.3	83.1	67.0	59.6	42.2	33.5	34.7	31.0	36.0	36.0	43.4
72.5°	62.0	54.6	44.7	34.7	29.8	23.6	23.6	22.3	24.8	26.1	32.3
75°	32.3	24.8	24.8	17.4	12.4	6.2	11.2	9.9	8.7	9.9	12.4
77.5°	22.3	18.6	17.4	13.7	12.4	9.9	9.9	9.9	9.9	11.2	12.4
80°	13.7	13.7	9.9	8.7	7.4	6.2	7.4	7.4	7.4	7.4	8.7
82.5°	8.7	7.4	7.4	6.2	6.2	5.0	5.0	5.0	5.0	5.0	7.4
85°	7.4	5.0	5.0	3.7	5.0	8.7	3.7	5.0	5.0	5.0	3.7
87.5°	2.5	3.7	3.7	3.7	2.5	1.2	2.5	3.7	3.7	6.2	5.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0	2312.0
2.5°	2315.8	2317.0	2317.0	2315.8	2315.8	2313.3	2318.2	2314.5	2315.8	2320.7	2317.0
5°	2318.2	2319.5	2319.5	2318.2	2318.2	2318.2	2319.5	2319.5	2318.2	2317.0	2319.5
7.5°	2323.2	2322.0	2322.0	2319.5	2319.5	2317.0	2319.5	2315.8	2318.2	2315.8	2319.5
10°	2317.0	2318.2	2317.0	2315.8	2315.8	2314.5	2314.5	2310.8	2312.0	2308.3	2310.8
12.5°	2313.3	2312.0	2312.0	2309.5	2307.1	2304.6	2303.3	2299.6	2299.6	2290.9	2294.7
15°	2303.3	2304.6	2300.9	2295.9	2293.4	2287.2	2284.7	2279.8	2274.8	2268.6	2269.9
17.5°	2294.7	2290.9	2286.0	2281.0	2271.1	2266.1	2261.1	2253.7	2251.2	2243.8	2241.3
20°	2268.6	2266.1	2259.9	2251.2	2245.0	2233.8	2228.9	2221.4	2215.2	2207.8	2204.0
22.5°	2235.1	2232.6	2225.2	2216.5	2206.5	2201.6	2196.6	2183.0	2176.7	2169.3	2168.1
25°	2192.9	2189.2	2181.7	2171.8	2166.8	2153.2	2148.2	2138.3	2135.8	2128.3	2127.1
27.5°	2128.3	2123.4	2114.7	2102.3	2093.6	2084.9	2080.0	2072.5	2070.0	2062.6	2061.4
30°	2031.6	2025.3	2008.0	2003.0	1988.1	1979.4	1979.4	1969.5	1970.7	1965.8	1965.8
32.5°	1878.9	1869.0	1855.3	1845.4	1835.5	1830.5	1830.5	1826.8	1829.3	1829.3	1831.8
35°	1676.6	1663.0	1655.5	1649.3	1649.3	1654.3	1669.2	1672.9	1680.4	1686.6	1691.5
37.5°	1417.2	1416.0	1424.7	1432.1	1450.8	1471.9	1497.9	1520.3	1541.3	1556.3	1571.1
40°	1136.8	1167.8	1192.6	1227.4	1255.9	1296.9	1344.0	1382.5	1418.5	1444.6	1471.9
42.5°	887.3	927.0	979.2	1030.0	1080.9	1136.8	1198.8	1252.2	1299.4	1335.3	1363.9
45°	691.2	745.8	809.2	873.7	939.5	1009.0	1073.5	1128.1	1177.7	1215.0	1243.5
47.5°	557.2	616.8	688.8	759.5	834.0	907.2	979.2	1026.3	1067.3	1097.1	1123.1
50°	460.4	523.7	599.4	680.1	754.5	827.8	889.8	935.7	969.2	995.3	1011.4
52.5°	384.7	451.7	532.4	613.1	687.5	754.5	810.4	845.1	872.4	891.1	905.9
55°	317.7	382.2	457.9	533.6	606.9	670.1	716.1	742.1	763.2	774.4	783.1
57.5°	259.4	318.9	388.4	457.9	521.2	573.4	609.4	635.4	645.3	654.0	652.8
60°	203.5	259.4	322.7	382.2	436.8	479.0	505.1	520.0	527.4	531.2	528.7
62.5°	160.1	211.0	259.4	311.5	351.2	387.2	412.0	412.0	415.7	417.0	420.7
65°	119.1	157.6	199.8	238.3	270.5	294.1	307.8	311.5	316.5	315.2	312.7
67.5°	88.1	116.7	147.7	176.2	198.6	213.4	223.4	232.1	230.8	228.4	227.1
70°	60.8	79.4	106.7	124.1	140.2	155.1	157.6	158.8	160.1	161.3	158.8
72.5°	42.2	55.8	70.8	85.6	95.6	101.8	108.0	109.2	109.2	109.2	108.0
75°	21.1	28.5	42.2	48.4	57.1	59.6	64.5	64.5	68.3	63.3	62.0
77.5°	18.6	22.3	29.8	34.7	38.5	42.2	43.4	47.2	45.9	43.4	44.7
80°	11.2	13.7	18.6	21.1	26.1	27.3	28.5	29.8	28.5	29.8	29.8
82.5°	8.7	9.9	12.4	12.4	16.1	16.1	17.4	17.4	18.6	18.6	18.6
85°	5.0	8.7	7.4	14.9	9.9	9.9	12.4	14.9	12.4	12.4	14.9
87.5°	5.0	5.0	3.7	5.0	5.0	5.0	6.2	7.4	7.4	8.7	7.4
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: P246196

CATALOG NUMBER: LSR8B40D010 EC8B40840 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2312.0	2312.0	2312.0	2312.0
2.5°	2315.8	2318.2	2314.5	2313.3
5°	2319.5	2319.5	2317.0	2317.0
7.5°	2319.5	2319.5	2315.8	2313.3
10°	2309.5	2309.5	2305.8	2303.3
12.5°	2290.9	2290.9	2289.7	2286.0
15°	2267.4	2267.4	2262.4	2258.7
17.5°	2235.1	2237.6	2231.4	2231.4
20°	2200.3	2199.1	2194.1	2191.7
22.5°	2164.4	2161.9	2160.6	2153.2
25°	2125.9	2123.4	2119.7	2116.0
27.5°	2060.1	2058.9	2055.1	2050.2
30°	1959.6	1958.3	1953.4	1953.4
32.5°	1829.3	1828.0	1823.1	1824.3
35°	1694.0	1699.0	1696.5	1691.5
37.5°	1581.1	1584.8	1587.3	1584.8
40°	1486.7	1497.9	1499.2	1501.7
42.5°	1386.2	1401.1	1406.1	1408.6
45°	1265.8	1279.5	1290.7	1288.2
47.5°	1143.0	1152.9	1162.8	1155.4
50°	1025.1	1031.3	1035.0	1035.0
52.5°	913.4	913.4	912.2	913.4
55°	785.6	785.6	780.6	783.1
57.5°	651.5	654.0	650.3	644.1
60°	527.4	521.2	518.7	515.0
62.5°	410.8	410.8	402.1	413.3
65°	307.8	304.1	300.3	299.1
67.5°	223.4	222.2	218.4	217.2
70°	157.6	152.6	151.4	148.9
72.5°	105.5	105.5	103.0	103.0
75°	64.5	58.3	57.1	58.3
77.5°	44.7	43.4	43.4	42.2
80°	29.8	28.5	31.0	27.3
82.5°	18.6	19.9	18.6	19.9
85°	12.4	14.9	13.7	13.7
87.5°	7.4	7.4	7.4	7.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)