

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: P249497

Luminaire Tested: **LSR8B70D010 EC8B709727 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249497
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: LSR8B70D010 EC8B709727 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 2700 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4703.0 lumens
Efficiency: N/A
Efficacy: 62.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

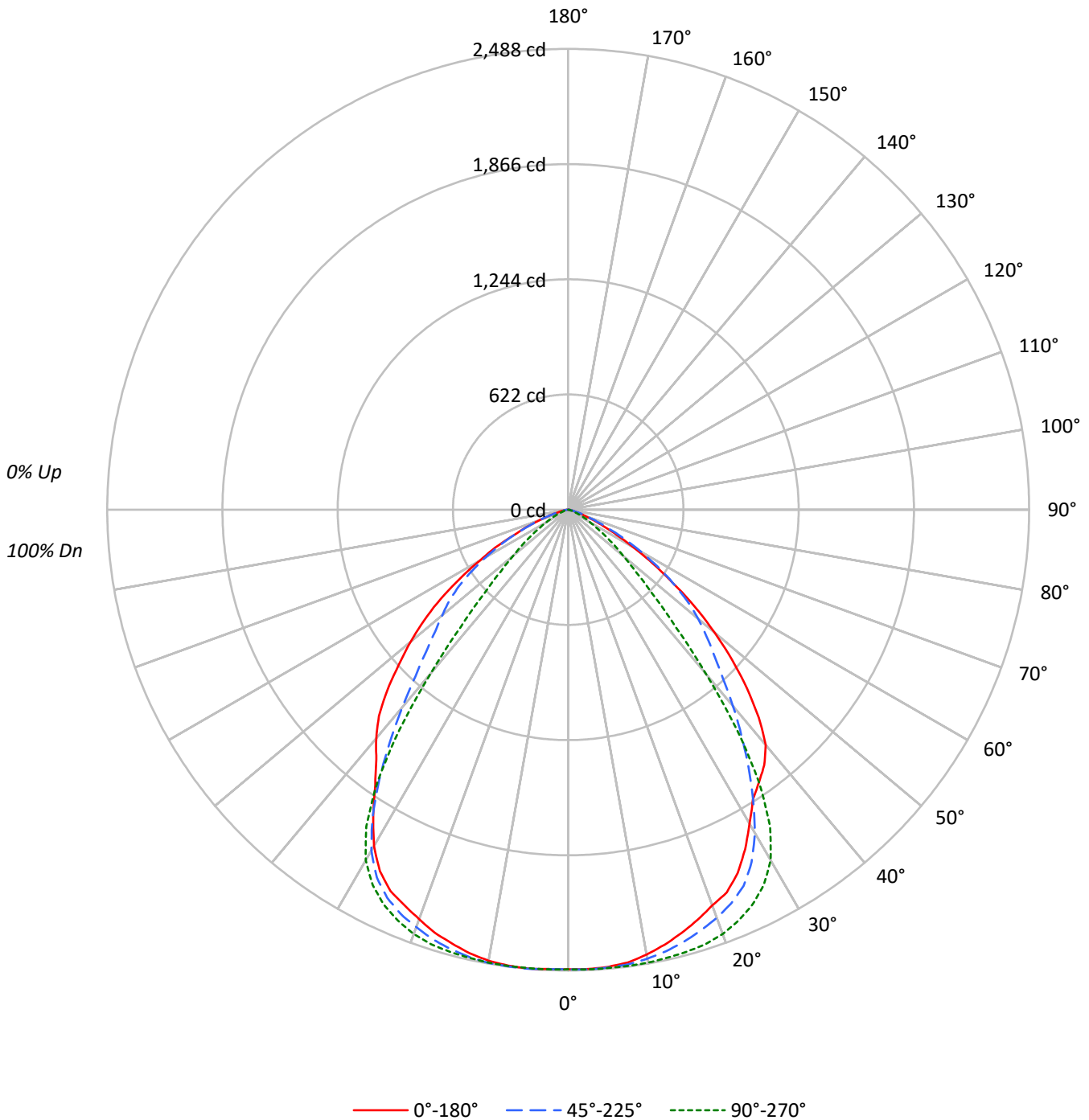
Input Watts (W): 75.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P249497

CATALOG NUMBER: LSR8B70D010 EC8B709727 8LBDW0B

Luminous Intensity Polar Plot





TEST NUMBER: P249497

CATALOG NUMBER: LSR8B70D010 EC8B709727 8LBDW0B

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



TEST NUMBER: P249497

CATALOG NUMBER: LSR8B70D010 EC8B709727 8LBDW0B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.8	5.0
10°-20°	687.7	14.6
20°-30°	1043.9	22.2
30°-40°	1096.4	23.3
40°-50°	822.0	17.5
50°-60°	527.4	11.2
60°-70°	225.6	4.8
70°-80°	53.3	1.1
80°-90°	9.9	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°	1968.4	41.9
0°-40°	3064.8	65.2
0°-60°	4414.2	93.9
0°-90°	4703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4703.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2481	2481	2481	2481	2481	
5°	2477	2481	2484	2488	2487	235
15°	2366	2415	2471	2455	2424	667
25°	2164	2240	2354	2311	2271	989
35°	1796	1696	1797	1776	1815	1127
45°	1364	1115	641	1083	1382	1045
55°	690	690	238	719	840	626
65°	208	245	76	316	321	222
75°	32	37	11	64	63	47
85°	11	7	5	11	15	11
90°	0	0	0	0	0	



TEST NUMBER: P249497

CATALOG NUMBER: LSR8B70D010 EC8B709727 8LBDW0B

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4
2.5°	2482.7	2485.4	2484.1	2484.1	2482.7	2484.1	2484.1	2486.7	2486.7	2484.1	2482.7
5°	2477.4	2480.1	2480.1	2477.4	2477.4	2484.1	2480.1	2482.7	2482.7	2481.4	2481.4
7.5°	2465.4	2465.4	2470.7	2466.8	2466.8	2470.7	2469.4	2472.1	2474.7	2476.1	2476.1
10°	2438.8	2441.4	2442.8	2442.8	2444.1	2448.1	2450.8	2456.1	2458.7	2461.4	2462.8
12.5°	2405.5	2409.5	2410.8	2409.5	2413.5	2418.8	2425.5	2432.1	2436.1	2441.4	2445.4
15°	2365.5	2365.5	2368.2	2372.2	2374.9	2382.8	2389.5	2397.5	2408.1	2414.8	2421.5
17.5°	2321.6	2324.2	2328.2	2328.2	2333.6	2346.9	2350.9	2362.9	2374.9	2381.5	2394.8
20°	2273.6	2276.3	2280.3	2283.0	2289.6	2300.3	2308.2	2318.9	2332.2	2344.2	2357.5
22.5°	2236.3	2231.0	2233.6	2236.3	2243.0	2252.3	2261.6	2274.9	2288.3	2300.3	2313.6
25°	2164.4	2165.7	2169.7	2172.4	2180.4	2188.4	2199.0	2215.0	2227.0	2240.3	2255.0
27.5°	2067.2	2068.5	2075.2	2075.2	2081.8	2095.1	2101.8	2115.1	2131.1	2144.4	2161.7
30°	1956.6	1959.3	1959.3	1964.6	1968.6	1975.3	1981.9	1995.2	2003.2	2015.2	2039.2
32.5°	1855.4	1858.0	1856.7	1855.4	1851.4	1850.1	1848.7	1851.4	1854.1	1858.0	1867.4
35°	1795.5	1788.8	1783.5	1774.2	1763.5	1750.2	1738.2	1722.2	1707.5	1695.5	1682.2
37.5°	1738.2	1736.8	1728.9	1715.5	1694.2	1670.3	1642.3	1607.6	1573.0	1535.7	1499.8
40°	1658.3	1654.3	1647.6	1629.0	1605.0	1575.7	1538.4	1495.8	1439.8	1382.5	1323.9
42.5°	1522.4	1523.7	1515.7	1501.1	1478.5	1450.5	1411.8	1365.2	1305.3	1237.4	1161.5
45°	1363.9	1363.9	1361.2	1349.2	1333.3	1310.6	1281.3	1242.7	1184.1	1114.8	1033.6
47.5°	1198.7	1200.1	1196.1	1193.4	1186.7	1172.1	1150.8	1121.5	1080.2	1013.6	932.3
50°	1030.9	1030.9	1037.6	1036.2	1036.2	1030.9	1021.6	1004.3	968.3	915.0	839.1
52.5°	863.1	865.8	869.8	875.1	881.7	892.4	881.7	873.7	851.1	809.8	744.6
55°	689.9	692.6	699.3	708.6	716.6	727.3	729.9	729.9	717.9	689.9	640.7
57.5°	542.1	538.1	543.4	551.4	562.1	572.7	580.7	590.0	588.7	570.1	530.1
60°	407.6	408.9	412.9	420.9	428.9	438.2	448.9	456.9	460.9	451.5	426.2
62.5°	297.0	297.0	302.3	310.3	314.3	327.7	334.3	338.3	342.3	341.0	325.0
65°	207.8	210.4	213.1	217.1	221.1	229.1	233.1	241.1	243.7	245.1	233.1
67.5°	146.5	142.5	145.2	147.8	151.8	157.2	165.2	165.2	169.1	169.1	161.2
70°	93.2	93.2	94.6	98.6	101.2	102.6	105.2	107.9	111.9	110.5	110.5
72.5°	62.6	61.3	62.6	63.9	65.3	69.3	69.3	70.6	73.3	74.6	69.3
75°	32.0	33.3	35.9	34.6	38.6	35.9	37.3	41.3	40.0	37.3	37.3
77.5°	26.6	26.6	26.6	25.3	28.0	28.0	26.6	29.3	28.0	28.0	26.6
80°	18.6	20.0	18.6	17.3	18.6	17.3	17.3	17.3	17.3	17.3	16.0
82.5°	14.7	12.0	13.3	12.0	13.3	13.3	12.0	10.7	10.7	12.0	10.7
85°	10.7	8.0	9.3	9.3	8.0	8.0	8.0	8.0	8.0	6.6	6.6
87.5°	6.6	4.0	4.0	4.0	5.3	5.3	5.3	4.0	5.3	5.3	2.7
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: P249497

CATALOG NUMBER: LSR8B70D010 EC8B709727 8LBDW0B

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4
2.5°	2485.4	2484.1	2486.7	2485.4	2485.4	2484.1	2485.4	2484.1	2486.7	2481.4	2482.7
5°	2485.4	2482.7	2484.1	2485.4	2486.7	2484.1	2484.1	2484.1	2486.7	2484.1	2485.4
7.5°	2480.1	2478.7	2482.7	2485.4	2484.1	2482.7	2485.4	2484.1	2486.7	2485.4	2488.0
10°	2469.4	2470.7	2473.4	2477.4	2478.7	2480.1	2482.7	2482.7	2486.7	2481.4	2484.1
12.5°	2453.4	2458.7	2465.4	2468.1	2473.4	2473.4	2476.1	2477.4	2480.1	2478.7	2482.7
15°	2433.5	2440.1	2448.1	2454.8	2461.4	2465.4	2469.4	2470.7	2474.7	2470.7	2472.1
17.5°	2409.5	2417.5	2429.4	2437.4	2448.1	2452.1	2457.4	2460.1	2464.1	2461.4	2462.8
20°	2376.2	2385.5	2398.8	2410.8	2417.5	2426.8	2433.5	2437.4	2440.1	2437.4	2438.8
22.5°	2329.6	2342.9	2360.2	2369.5	2382.8	2390.8	2392.2	2401.5	2408.1	2401.5	2404.2
25°	2274.9	2288.3	2301.6	2321.6	2333.6	2342.9	2352.2	2353.5	2360.2	2358.9	2357.5
27.5°	2184.4	2201.7	2224.3	2240.3	2256.3	2271.0	2281.6	2284.3	2290.9	2288.3	2289.6
30°	2060.5	2079.2	2100.5	2125.8	2148.4	2163.1	2176.4	2185.7	2192.4	2188.4	2187.0
32.5°	1884.7	1903.3	1926.0	1951.3	1977.9	1999.2	2015.2	2027.2	2035.2	2032.5	2025.9
35°	1683.6	1688.9	1703.6	1723.5	1746.2	1768.8	1783.5	1796.8	1806.1	1808.8	1808.8
37.5°	1477.1	1459.8	1449.2	1449.2	1462.5	1471.8	1485.1	1493.1	1507.8	1513.1	1517.1
40°	1277.3	1237.4	1200.1	1172.1	1153.5	1152.1	1152.1	1156.1	1169.4	1186.7	1202.7
42.5°	1098.8	1034.9	977.6	925.7	888.4	867.1	857.8	859.1	869.8	885.7	912.4
45°	956.3	876.4	804.5	741.9	691.3	658.0	642.0	640.7	648.6	667.3	696.6
47.5°	845.8	760.5	679.3	607.4	552.8	516.8	498.1	492.8	498.1	515.4	550.1
50°	753.9	666.0	582.1	507.5	448.9	411.6	394.2	387.6	394.2	408.9	443.5
52.5°	668.6	578.1	499.5	427.6	364.9	333.0	314.3	310.3	314.3	331.6	359.6
55°	570.1	492.8	415.6	343.6	289.0	257.1	242.4	238.4	242.4	258.4	287.7
57.5°	472.9	406.2	338.3	273.0	226.4	198.4	185.1	179.8	189.1	199.8	234.4
60°	382.3	329.0	271.7	214.4	175.8	150.5	139.8	138.5	141.2	154.5	178.5
62.5°	299.7	255.7	210.4	163.8	131.9	121.2	107.9	106.6	109.2	117.2	135.9
65°	215.8	187.8	153.2	119.9	94.6	79.9	74.6	75.9	78.6	83.9	101.2
67.5°	150.5	130.5	106.6	83.9	65.3	58.6	53.3	51.9	53.3	62.6	71.9
70°	101.2	89.2	71.9	63.9	45.3	35.9	37.3	33.3	38.6	38.6	46.6
72.5°	66.6	58.6	47.9	37.3	32.0	25.3	25.3	24.0	26.6	28.0	34.6
75°	34.6	26.6	26.6	18.6	13.3	6.6	12.0	10.7	9.3	10.7	13.3
77.5°	24.0	20.0	18.6	14.7	13.3	10.7	10.7	10.7	10.7	12.0	13.3
80°	14.7	14.7	10.7	9.3	8.0	6.6	8.0	8.0	8.0	8.0	9.3
82.5°	9.3	8.0	8.0	6.6	6.6	5.3	5.3	5.3	5.3	5.3	8.0
85°	8.0	5.3	5.3	4.0	5.3	9.3	4.0	5.3	5.3	5.3	4.0
87.5°	2.7	4.0	4.0	4.0	2.7	1.3	2.7	4.0	4.0	6.6	5.3
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: P249497

CATALOG NUMBER: LSR8B70D010 EC8B709727 8LBDW0B

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4	2481.4
2.5°	2485.4	2486.7	2486.7	2485.4	2485.4	2482.7	2488.0	2484.1	2485.4	2490.7	2486.7
5°	2488.0	2489.4	2489.4	2488.0	2488.0	2488.0	2489.4	2489.4	2488.0	2486.7	2489.4
7.5°	2493.4	2492.1	2492.1	2489.4	2489.4	2486.7	2489.4	2485.4	2488.0	2485.4	2489.4
10°	2486.7	2488.0	2486.7	2485.4	2485.4	2484.1	2484.1	2480.1	2481.4	2477.4	2480.1
12.5°	2482.7	2481.4	2481.4	2478.7	2476.1	2473.4	2472.1	2468.1	2468.1	2458.7	2462.8
15°	2472.1	2473.4	2469.4	2464.1	2461.4	2454.8	2452.1	2446.8	2441.4	2434.8	2436.1
17.5°	2462.8	2458.7	2453.4	2448.1	2437.4	2432.1	2426.8	2418.8	2416.1	2408.1	2405.5
20°	2434.8	2432.1	2425.5	2416.1	2409.5	2397.5	2392.2	2384.2	2377.5	2369.5	2365.5
22.5°	2398.8	2396.1	2388.2	2378.8	2368.2	2362.9	2357.5	2342.9	2336.2	2328.2	2326.9
25°	2353.5	2349.5	2341.5	2330.9	2325.5	2310.9	2305.6	2294.9	2292.3	2284.3	2283.0
27.5°	2284.3	2278.9	2269.6	2256.3	2247.0	2237.7	2232.3	2224.3	2221.7	2213.7	2212.4
30°	2180.4	2173.7	2155.1	2149.8	2133.8	2124.4	2124.4	2113.8	2115.1	2109.8	2109.8
32.5°	2016.6	2005.9	1991.2	1980.6	1969.9	1964.6	1964.6	1960.6	1963.3	1963.3	1965.9
35°	1799.4	1784.8	1776.8	1770.1	1770.1	1775.5	1791.5	1795.5	1803.5	1810.1	1815.4
37.5°	1521.1	1519.8	1529.1	1537.1	1557.0	1579.7	1607.6	1631.6	1654.3	1670.3	1686.2
40°	1220.1	1253.4	1280.0	1317.3	1347.9	1391.9	1442.5	1483.8	1522.4	1550.4	1579.7
42.5°	952.3	995.0	1050.9	1105.5	1160.1	1220.1	1286.7	1343.9	1394.5	1433.2	1463.8
45°	741.9	800.5	868.4	937.7	1008.3	1082.9	1152.1	1210.7	1264.0	1304.0	1334.6
47.5°	598.0	662.0	739.2	815.1	895.1	973.6	1050.9	1101.5	1145.5	1177.4	1205.4
50°	494.1	562.1	643.3	729.9	809.8	888.4	955.0	1004.3	1040.3	1068.2	1085.5
52.5°	412.9	484.8	571.4	658.0	737.9	809.8	869.8	907.1	936.4	956.3	972.3
55°	341.0	410.2	491.5	572.7	651.3	719.2	768.5	796.5	819.1	831.1	840.4
57.5°	278.4	342.3	416.9	491.5	559.4	615.4	654.0	682.0	692.6	701.9	700.6
60°	218.5	278.4	346.3	410.2	468.8	514.1	542.1	558.1	566.1	570.1	567.4
62.5°	171.8	226.4	278.4	334.3	376.9	415.6	442.2	442.2	446.2	447.5	451.5
65°	127.9	169.1	214.4	255.7	290.3	315.7	330.3	334.3	339.7	338.3	335.6
67.5°	94.6	125.2	158.5	189.1	213.1	229.1	239.7	249.1	247.8	245.1	243.7
70°	65.3	85.3	114.6	133.2	150.5	166.5	169.1	170.5	171.8	173.2	170.5
72.5°	45.3	59.9	75.9	91.9	102.6	109.2	115.9	117.2	117.2	117.2	115.9
75°	22.6	30.6	45.3	51.9	61.3	63.9	69.3	69.3	73.3	67.9	66.6
77.5°	20.0	24.0	32.0	37.3	41.3	45.3	46.6	50.6	49.3	46.6	47.9
80°	12.0	14.7	20.0	22.6	28.0	29.3	30.6	32.0	30.6	32.0	32.0
82.5°	9.3	10.7	13.3	13.3	17.3	17.3	18.6	18.6	20.0	20.0	20.0
85°	5.3	9.3	8.0	16.0	10.7	10.7	13.3	16.0	13.3	13.3	16.0
87.5°	5.3	5.3	4.0	5.3	5.3	5.3	6.6	8.0	8.0	9.3	8.0
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: P249497

CATALOG NUMBER: LSR8B70D010 EC8B709727 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2481.4	2481.4	2481.4	2481.4
2.5°	2485.4	2488.0	2484.1	2482.7
5°	2489.4	2489.4	2486.7	2486.7
7.5°	2489.4	2489.4	2485.4	2482.7
10°	2478.7	2478.7	2474.7	2472.1
12.5°	2458.7	2458.7	2457.4	2453.4
15°	2433.5	2433.5	2428.1	2424.1
17.5°	2398.8	2401.5	2394.8	2394.8
20°	2361.5	2360.2	2354.9	2352.2
22.5°	2322.9	2320.2	2318.9	2310.9
25°	2281.6	2278.9	2274.9	2271.0
27.5°	2211.0	2209.7	2205.7	2200.4
30°	2103.1	2101.8	2096.5	2096.5
32.5°	1963.3	1961.9	1956.6	1958.0
35°	1818.1	1823.4	1820.8	1815.4
37.5°	1696.9	1700.9	1703.6	1700.9
40°	1595.7	1607.6	1609.0	1611.7
42.5°	1487.8	1503.8	1509.1	1511.7
45°	1358.6	1373.2	1385.2	1382.5
47.5°	1226.7	1237.4	1248.0	1240.0
50°	1100.2	1106.8	1110.8	1110.8
52.5°	980.3	980.3	979.0	980.3
55°	843.1	843.1	837.8	840.4
57.5°	699.3	701.9	697.9	691.3
60°	566.1	559.4	556.7	552.8
62.5°	440.9	440.9	431.6	443.5
65°	330.3	326.3	322.3	321.0
67.5°	239.7	238.4	234.4	233.1
70°	169.1	163.8	162.5	159.8
72.5°	113.2	113.2	110.5	110.5
75°	69.3	62.6	61.3	62.6
77.5°	47.9	46.6	46.6	45.3
80°	32.0	30.6	33.3	29.3
82.5°	20.0	21.3	20.0	21.3
85°	13.3	16.0	14.7	14.7
87.5°	8.0	8.0	8.0	8.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)