

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: P249715

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249715
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13955)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90835 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE 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: 9966.0 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.15
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

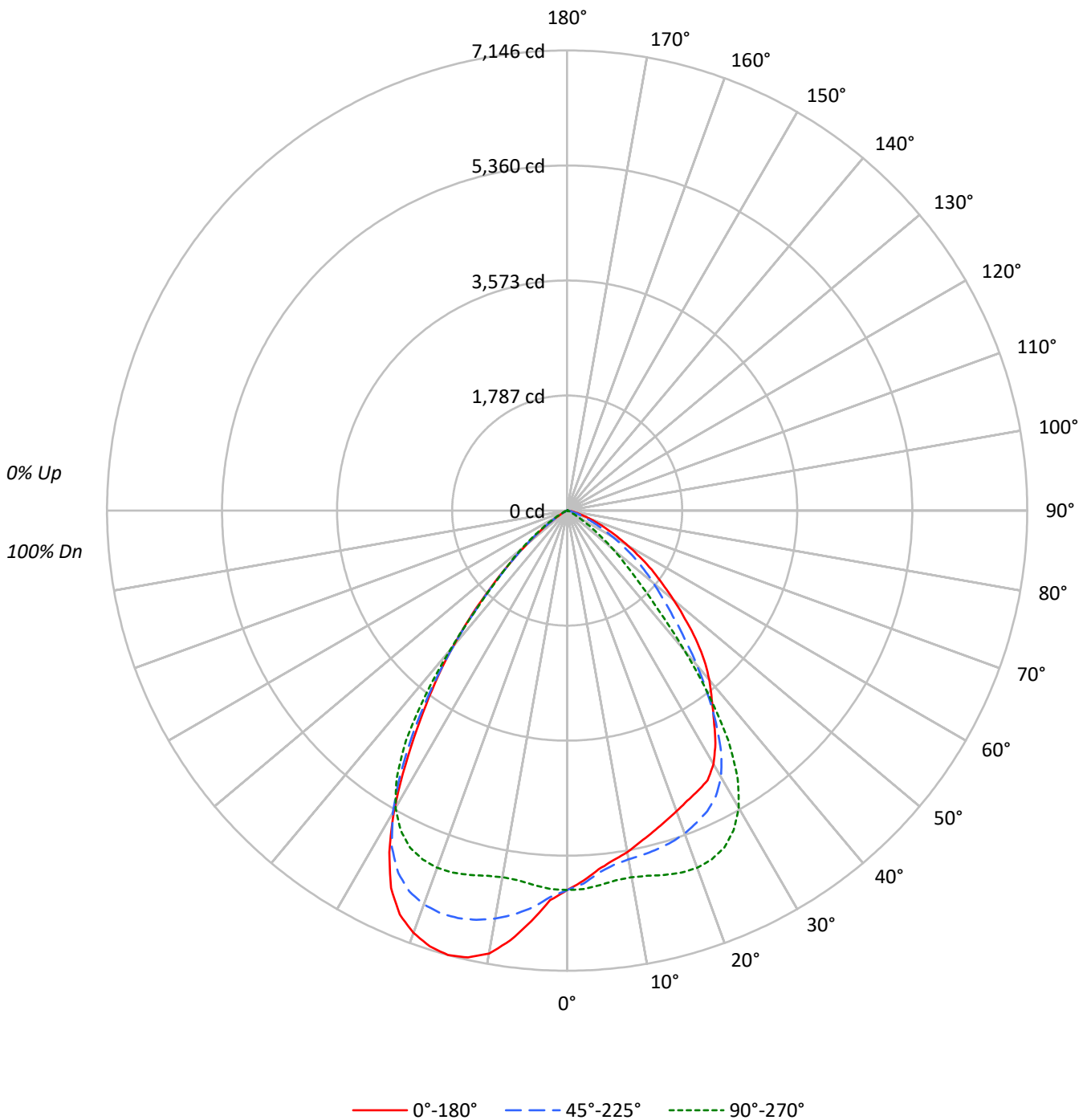
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60
6	80	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	181715	181715	181715
5°	173120	180704	198097
10°	168656	180983	218664
15°	164831	186983	228123
20°	163017	193738	228982
25°	163397	196476	220085
30°	161882	189730	191397
35°	149583	164200	149790
40°	138228	113842	111073
45°	123087	68693	70970
50°	103568	44255	40163
55°	86164	24279	18360
60°	67254	10528	5773
65°	49631	5224	2809
70°	34513	3228	1235
75°	21005	667	0
80°	15148	994	0
85°	9730	955	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	566.5	5.7
10°-20°	1695.5	17.0
20°-30°	2596.5	26.1
30°-40°	2545.4	25.5
40°-50°	1532.9	15.4
50°-60°	705.5	7.1
60°-70°	247.8	2.5
70°-80°	64.8	0.7
80°-90°	11.0	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°	4858.5	48.8
0°-40°	7403.9	74.3
0°-60°	9642.3	96.8
0°-90°	9966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9966.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5893	5893	5893	5893	5893	
5°	5593	5645	5838	6188	6400	528
15°	5163	5441	5857	6551	7146	1459
25°	4802	5150	5775	6210	6468	2212
35°	3974	4029	4362	4111	3979	2489
45°	2822	2324	1575	1586	1627	2164
55°	1603	1270	452	355	342	1430
65°	680	471	72	36	38	693
75°	176	102	6	0	0	214
85°	28	14	3	0	0	38
90°	0	0	0	0	0	



TEST NUMBER: P249715

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9
2.5°	5755.2	5760.8	5760.8	5760.8	5771.8	5774.6	5771.8	5774.6	5780.0	5799.3	5807.6
5°	5592.8	5584.5	5590.1	5587.2	5601.1	5609.3	5603.8	5612.0	5631.3	5645.1	5658.9
7.5°	5477.2	5477.2	5477.2	5482.6	5490.9	5507.4	5504.7	5510.2	5529.4	5548.7	5568.0
10°	5386.3	5383.5	5383.5	5397.3	5408.3	5427.5	5433.1	5449.6	5474.3	5499.2	5521.1
12.5°	5267.8	5270.7	5284.4	5298.2	5322.9	5353.2	5369.7	5391.8	5430.4	5471.6	5496.4
15°	5163.2	5165.9	5177.0	5204.5	5234.8	5270.7	5306.4	5342.2	5389.0	5441.4	5485.4
17.5°	5061.3	5064.0	5072.3	5102.7	5141.2	5188.0	5229.3	5276.1	5336.7	5397.3	5452.3
20°	4967.7	4965.0	4978.7	5006.2	5055.9	5099.8	5141.2	5196.3	5262.4	5336.7	5400.0
22.5°	4876.8	4876.8	4890.6	4918.2	4962.2	5006.2	5050.3	5108.1	5174.2	5245.8	5320.2
25°	4802.4	4799.7	4819.0	4832.8	4865.8	4909.9	4956.7	5003.5	5069.6	5149.5	5221.0
27.5°	4722.6	4719.9	4722.6	4739.2	4769.4	4802.4	4838.2	4879.6	4934.7	5000.8	5069.6
30°	4546.4	4549.1	4549.1	4562.9	4579.5	4615.2	4634.4	4675.8	4725.4	4780.4	4841.1
32.5°	4284.8	4287.5	4287.5	4293.1	4306.8	4323.3	4339.9	4370.1	4408.7	4455.5	4510.6
35°	3973.6	3973.6	3970.8	3973.6	3981.9	3981.9	3995.6	3981.9	4001.2	4028.7	4070.0
37.5°	3687.2	3681.7	3676.2	3670.7	3662.4	3648.7	3629.4	3596.3	3588.0	3577.1	3579.8
40°	3433.9	3431.2	3414.6	3400.8	3373.3	3340.3	3293.5	3235.7	3188.8	3133.8	3086.9
42.5°	3153.0	3150.2	3136.5	3111.7	3081.4	3031.9	2957.5	2880.4	2786.8	2704.2	2618.8
45°	2822.5	2830.8	2811.5	2784.0	2748.2	2701.4	2618.8	2525.1	2431.5	2324.1	2216.7
47.5°	2478.3	2475.6	2461.9	2445.3	2415.0	2368.2	2313.1	2211.2	2112.1	2013.0	1902.8
50°	2158.9	2147.9	2142.3	2125.9	2106.6	2068.1	2010.2	1927.5	1839.5	1745.9	1644.0
52.5°	1856.0	1856.0	1842.2	1831.2	1814.7	1784.4	1734.9	1668.8	1594.4	1506.2	1398.9
55°	1602.7	1597.1	1583.4	1569.6	1553.1	1533.8	1489.8	1434.7	1354.8	1269.5	1175.8
57.5°	1332.8	1330.0	1324.5	1308.0	1299.7	1280.5	1230.9	1175.8	1107.0	1032.7	955.5
60°	1090.5	1079.5	1068.4	1057.4	1043.7	1024.4	991.3	944.5	886.7	820.6	743.5
62.5°	873.0	889.4	856.4	856.4	828.9	812.3	782.1	754.5	693.9	633.4	567.3
65°	680.2	680.2	666.4	655.4	638.8	619.5	589.3	561.7	517.6	470.8	424.0
67.5°	520.5	517.6	503.9	492.9	479.1	468.1	446.1	413.0	380.0	341.5	302.9
70°	382.8	380.0	377.2	357.9	346.9	333.2	316.7	294.7	269.9	242.3	206.5
72.5°	275.3	275.3	267.2	258.9	247.9	236.8	220.3	206.5	184.5	165.3	140.4
75°	176.3	173.5	173.5	159.7	159.7	143.2	132.2	123.9	112.9	101.9	79.9
77.5°	126.7	123.9	121.2	115.6	110.2	104.6	96.3	85.3	77.1	66.1	57.8
80°	85.3	79.9	77.1	77.1	68.8	66.1	68.8	52.4	49.5	41.3	35.8
82.5°	52.4	52.4	49.5	49.5	46.8	44.1	35.8	35.8	33.1	30.3	24.8
85°	27.5	35.8	24.8	27.5	24.8	27.5	24.8	19.3	16.5	13.7	13.7
87.5°	16.5	11.0	11.0	16.5	13.7	11.0	11.0	11.0	8.3	5.6	5.6
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: P249715

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBSW0LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9
2.5°	5802.1	5821.4	5818.6	5843.4	5851.7	5870.9	5870.9	5884.6	5892.9	5912.2	5928.7
5°	5664.4	5694.7	5703.0	5733.2	5758.0	5788.3	5807.6	5837.8	5865.4	5906.7	5945.3
7.5°	5579.1	5603.8	5620.3	5656.1	5683.7	5716.7	5749.8	5791.0	5829.6	5879.2	5934.3
10°	5537.7	5570.8	5595.5	5631.3	5664.4	5700.2	5733.2	5780.0	5824.1	5887.5	5948.0
12.5°	5526.7	5565.2	5595.5	5645.1	5678.1	5716.7	5755.2	5807.6	5854.4	5920.5	5989.4
15°	5526.7	5579.1	5620.3	5675.4	5713.9	5763.5	5804.8	5857.1	5909.5	5978.3	6044.3
17.5°	5515.7	5579.1	5631.3	5694.7	5744.2	5793.9	5846.1	5895.8	5950.7	6016.9	6091.2
20°	5471.6	5551.5	5614.8	5689.1	5741.5	5796.6	5848.9	5903.9	5961.8	6030.6	6094.0
22.5°	5394.5	5488.2	5559.8	5639.6	5700.2	5755.2	5807.6	5862.7	5926.0	5992.1	6058.2
25°	5292.6	5380.7	5457.9	5540.4	5601.1	5661.6	5711.2	5774.6	5832.4	5895.8	5948.0
27.5°	5138.4	5232.0	5306.4	5391.8	5446.8	5504.7	5546.0	5598.3	5653.4	5705.7	5747.0
30°	4907.2	4992.5	5069.6	5146.7	5201.7	5243.1	5287.1	5328.5	5364.3	5400.0	5435.8
32.5°	4568.4	4645.6	4719.9	4791.4	4835.5	4871.3	4904.3	4929.1	4948.4	4967.7	4970.4
35°	4103.1	4166.3	4213.1	4276.5	4317.9	4350.9	4350.9	4361.9	4359.1	4350.9	4342.6
37.5°	3582.6	3607.3	3626.6	3651.4	3654.1	3654.1	3637.7	3623.9	3601.9	3596.3	3579.8
40°	3040.1	3007.0	2982.2	2949.2	2930.0	2888.6	2852.9	2828.1	2792.3	2786.8	2781.3
42.5°	2525.1	2448.0	2379.2	2321.4	2255.3	2197.4	2145.2	2106.6	2079.1	2076.3	2079.1
45°	2106.6	2018.4	1916.5	1836.8	1762.4	1690.8	1622.0	1575.2	1550.3	1544.8	1550.3
47.5°	1789.9	1688.0	1588.9	1498.0	1418.2	1338.3	1269.5	1206.1	1175.8	1167.6	1164.8
50°	1539.3	1434.7	1330.0	1236.4	1148.3	1068.4	983.0	922.5	884.0	870.1	859.2
52.5°	1294.3	1200.7	1093.2	996.9	908.7	815.1	727.0	658.1	619.5	603.1	592.0
55°	1079.5	985.9	886.7	793.1	699.5	605.8	517.6	451.6	410.3	391.0	377.2
57.5°	861.9	773.8	688.5	594.8	517.6	426.9	338.7	280.9	245.1	223.1	212.1
60°	666.4	597.6	523.2	446.1	371.8	297.4	225.8	170.7	143.2	126.7	112.9
62.5°	503.9	446.1	396.5	330.4	272.6	209.2	154.3	110.2	85.3	71.6	66.1
65°	363.5	319.4	275.3	234.1	192.8	146.0	104.6	71.6	49.5	41.3	38.5
67.5°	258.9	223.1	190.0	162.4	132.2	104.6	74.4	49.5	38.5	33.1	30.3
70°	181.7	154.3	132.2	107.5	88.1	68.8	57.8	35.8	22.0	24.8	19.3
72.5°	121.2	101.9	90.9	74.4	60.5	49.5	35.8	24.8	24.8	19.3	16.5
75°	66.1	60.5	46.8	35.8	30.3	27.5	11.0	5.6	2.7	8.3	2.7
77.5°	46.8	41.3	35.8	30.3	24.8	19.3	11.0	11.0	8.3	11.0	5.6
80°	30.3	24.8	22.0	22.0	13.7	8.3	5.6	5.6	8.3	2.7	2.7
82.5°	19.3	16.5	13.7	13.7	13.7	8.3	8.3	8.3	8.3	5.6	5.6
85°	11.0	8.3	5.6	5.6	2.7	5.6	0.0	2.7	2.7	0.0	0.0
87.5°	5.6	2.7	2.7	2.7	2.7	0.0	0.0	2.7	0.0	2.7	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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9	5892.9
2.5°	5939.7	5950.7	5964.6	5975.5	6000.4	6005.8	6016.9	6027.9	6036.2	6044.3	6047.2
5°	5978.3	6019.6	6058.2	6099.4	6151.8	6187.6	6228.9	6264.7	6300.5	6330.8	6352.8
7.5°	5989.4	6052.6	6110.5	6182.1	6259.1	6325.3	6394.1	6462.9	6534.6	6589.6	6636.5
10°	6011.4	6088.4	6162.8	6248.1	6347.3	6435.4	6520.7	6611.6	6702.5	6779.6	6848.5
12.5°	6049.9	6135.2	6215.2	6308.8	6410.7	6509.7	6603.4	6705.3	6801.7	6887.1	6964.1
15°	6113.3	6193.1	6270.2	6358.3	6460.2	6551.1	6644.7	6743.8	6840.3	6928.3	7000.0
17.5°	6154.5	6228.9	6305.9	6385.9	6471.2	6553.8	6641.9	6730.1	6818.2	6898.1	6964.1
20°	6154.5	6226.2	6284.0	6355.6	6435.4	6507.0	6578.7	6655.7	6732.8	6798.9	6862.2
22.5°	6105.0	6173.8	6217.9	6273.0	6341.8	6402.4	6440.9	6526.3	6584.1	6641.9	6688.7
25°	5989.4	6038.9	6074.7	6113.3	6168.3	6209.6	6242.7	6292.2	6350.0	6372.1	6405.1
27.5°	5780.0	5815.8	5835.1	5843.4	5870.9	5892.9	5898.5	5920.5	5945.3	5950.7	5964.6
30°	5449.6	5452.3	5444.1	5441.4	5427.5	5411.1	5408.3	5405.5	5394.5	5383.5	5386.3
32.5°	4951.1	4937.4	4904.3	4868.6	4832.8	4794.3	4772.2	4744.6	4728.1	4711.6	4692.4
35°	4306.8	4273.8	4227.0	4182.9	4141.6	4111.2	4061.7	4045.2	4028.7	4006.6	4001.2
37.5°	3549.5	3530.2	3486.2	3453.2	3431.2	3417.4	3392.5	3376.1	3376.1	3367.8	3362.3
40°	2767.4	2762.0	2745.4	2753.7	2742.7	2748.2	2745.4	2739.9	2753.7	2753.7	2759.3
42.5°	2076.3	2079.1	2087.4	2092.8	2109.3	2112.1	2125.9	2125.9	2134.2	2142.3	2147.9
45°	1544.8	1555.9	1555.9	1566.9	1583.4	1586.1	1591.6	1594.4	1599.9	1613.7	1619.1
47.5°	1159.3	1162.0	1162.0	1164.8	1170.3	1175.8	1173.1	1175.8	1184.1	1178.6	1184.1
50°	856.4	859.2	850.9	842.6	850.9	850.9	848.2	839.9	848.2	837.2	842.6
52.5°	583.8	581.0	572.7	575.6	570.0	567.3	567.3	561.7	561.7	561.7	550.7
55°	369.1	369.1	363.5	363.5	360.8	355.2	352.5	349.7	346.9	344.2	344.2
57.5°	206.5	209.2	201.1	198.2	201.1	198.2	192.8	192.8	192.8	184.5	190.0
60°	112.9	110.2	107.5	104.6	101.9	104.6	104.6	99.2	99.2	99.2	101.9
62.5°	60.5	60.5	57.8	57.8	55.1	55.1	60.5	52.4	55.1	52.4	55.1
65°	33.1	41.3	30.3	30.3	38.5	35.8	33.1	33.1	35.8	30.3	33.1
67.5°	35.8	24.8	22.0	24.8	22.0	22.0	22.0	27.5	24.8	19.3	24.8
70°	16.5	19.3	19.3	13.7	22.0	11.0	19.3	11.0	16.5	13.7	16.5
72.5°	16.5	16.5	16.5	11.0	16.5	11.0	13.7	13.7	11.0	11.0	16.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.6	5.6	2.7	2.7	2.7	2.7	5.6	5.6	5.6	0.0	2.7
80°	5.6	5.6	0.0	2.7	0.0	0.0	2.7	0.0	2.7	0.0	5.6
82.5°	2.7	5.6	2.7	2.7	5.6	5.6	5.6	2.7	2.7	2.7	2.7
85°	0.0	2.7	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	2.7
87.5°	0.0	2.7	0.0	0.0	0.0	0.0	2.7	2.7	0.0	0.0	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: P249715

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5892.9	5892.9	5892.9	5892.9
2.5°	6049.9	6052.6	6058.2	6055.5
5°	6369.3	6391.4	6402.4	6399.7
7.5°	6669.4	6708.1	6730.1	6730.1
10°	6900.8	6944.9	6977.9	6983.4
12.5°	7024.7	7074.3	7118.4	7107.3
15°	7060.5	7110.1	7154.1	7145.8
17.5°	7019.2	7068.8	7101.9	7096.3
20°	6906.3	6947.6	6980.7	6977.9
22.5°	6730.1	6765.9	6793.4	6790.6
25°	6432.7	6457.5	6479.5	6468.5
27.5°	5975.5	5983.8	5997.5	5981.1
30°	5367.0	5372.4	5378.0	5375.3
32.5°	4684.1	4681.3	4675.8	4670.3
35°	3992.9	3992.9	3995.6	3979.1
37.5°	3365.0	3362.3	3370.5	3362.3
40°	2764.7	2762.0	2773.0	2759.3
42.5°	2156.2	2164.4	2167.2	2167.2
45°	1622.0	1624.7	1627.4	1627.4
47.5°	1184.1	1186.8	1200.7	1184.1
50°	837.2	839.9	842.6	837.2
52.5°	553.5	556.3	553.5	545.2
55°	338.7	341.5	341.5	341.5
57.5°	181.7	184.5	184.5	181.7
60°	99.2	96.3	99.2	93.6
62.5°	52.4	57.8	55.1	49.5
65°	33.1	33.1	33.1	38.5
67.5°	27.5	22.0	24.8	19.3
70°	16.5	19.3	19.3	13.7
72.5°	13.7	13.7	13.7	16.5
75°	0.0	0.0	0.0	0.0
77.5°	5.6	5.6	5.6	2.7
80°	2.7	0.0	2.7	0.0
82.5°	2.7	2.7	5.6	2.7
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)