

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: P249757

Luminaire Tested: **LSR8B90D010 EC8B90940 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249757
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 EC8B90940 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8876.0 lumens
Efficiency: N/A
Efficacy: 103.1 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

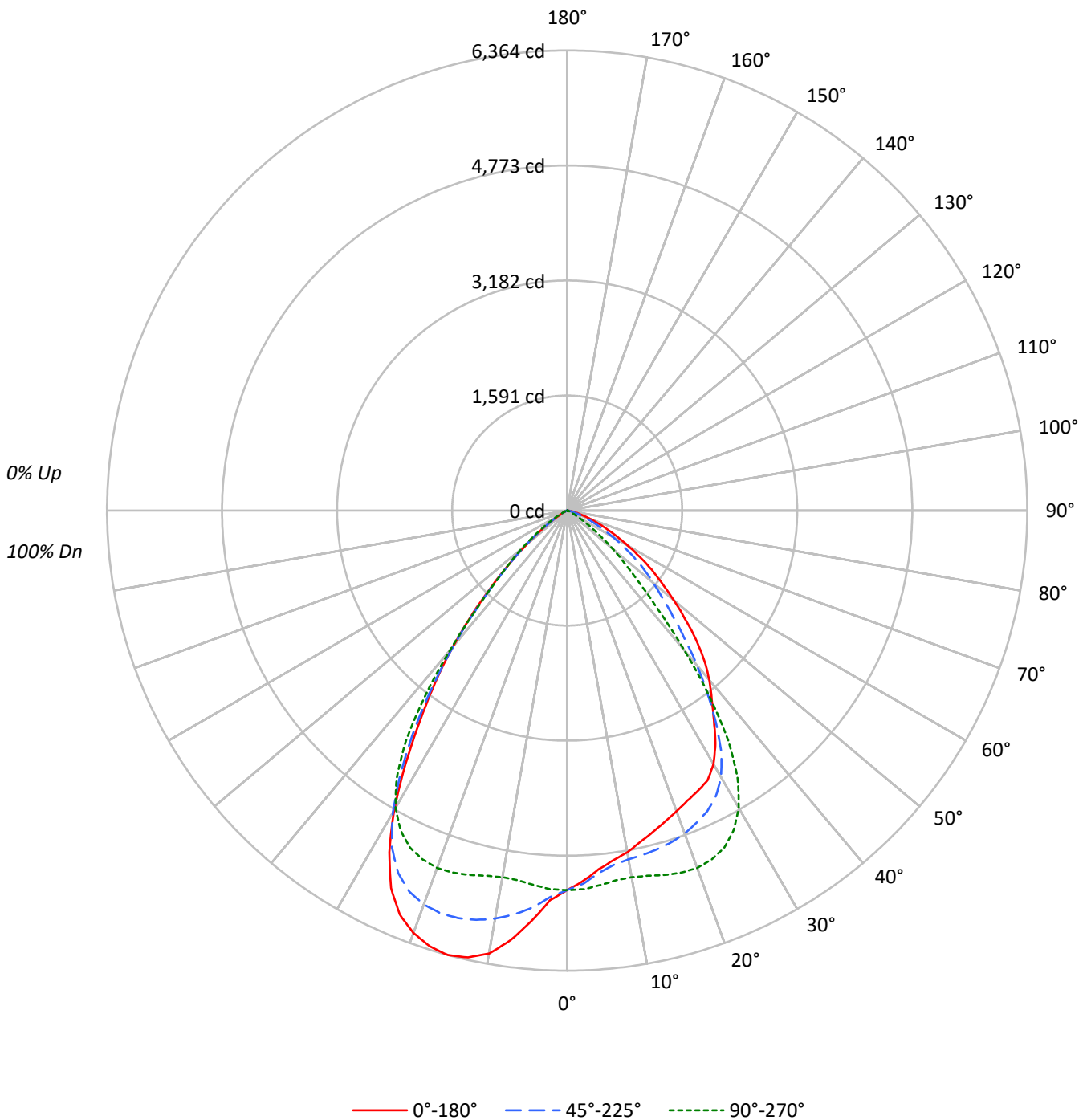
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	161841	161841	161841
5°	154185	160940	176429
10°	150210	161191	194748
15°	146803	166532	203175
20°	145188	172550	203937
25°	145528	174986	196013
30°	144175	168979	170464
35°	133223	146240	133407
40°	123109	101392	98924
45°	109625	61179	63207
50°	92242	39414	35769
55°	76739	21623	16354
60°	59896	9374	5143
65°	44202	4655	2503
70°	30735	2876	1100
75°	18705	584	0
80°	13496	870	0
85°	8668	849	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	504.5	5.7
10°-20°	1510.1	17.0
20°-30°	2312.5	26.1
30°-40°	2267.0	25.5
40°-50°	1365.2	15.4
50°-60°	628.4	7.1
60°-70°	220.7	2.5
70°-80°	57.7	0.7
80°-90°	9.8	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°	4327.1	48.8
0°-40°	6594.1	74.3
0°-60°	8587.7	96.8
0°-90°	8876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8876.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5248	5248	5248	5248	5248	
5°	4981	5028	5199	5511	5700	470
15°	4598	4846	5216	5835	6364	1299
25°	4277	4586	5143	5530	5761	1970
35°	3539	3588	3885	3662	3544	2216
45°	2514	2070	1403	1413	1449	1928
55°	1427	1131	402	316	304	1274
65°	606	419	64	32	34	617
75°	157	91	5	0	0	190
85°	24	12	2	0	0	34
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°	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4
2.5°	5125.7	5130.7	5130.7	5130.7	5140.5	5143.0	5140.5	5143.0	5147.9	5165.0	5172.4
5°	4981.1	4973.7	4978.7	4976.1	4988.5	4995.8	4990.9	4998.2	5015.4	5027.7	5039.9
7.5°	4878.1	4878.1	4878.1	4883.0	4890.3	4905.1	4902.7	4907.5	4924.7	4941.8	4959.0
10°	4797.2	4794.7	4794.7	4807.0	4816.7	4833.9	4838.9	4853.6	4875.6	4897.7	4917.3
12.5°	4691.7	4694.2	4706.4	4718.7	4740.7	4767.7	4782.4	4802.1	4836.4	4873.2	4895.3
15°	4598.5	4600.9	4610.8	4635.2	4662.3	4694.2	4726.0	4757.9	4799.6	4846.2	4885.5
17.5°	4507.7	4510.2	4517.5	4544.6	4578.9	4620.6	4657.3	4699.0	4753.0	4807.0	4856.0
20°	4424.4	4421.9	4434.1	4458.7	4502.9	4542.1	4578.9	4628.0	4686.8	4753.0	4809.4
22.5°	4343.4	4343.4	4355.7	4380.2	4419.5	4458.7	4497.9	4549.4	4608.3	4672.1	4738.3
25°	4277.2	4274.8	4291.9	4304.2	4333.6	4372.9	4414.6	4456.3	4515.1	4586.3	4650.0
27.5°	4206.1	4203.7	4206.1	4220.8	4247.8	4277.2	4309.1	4345.9	4395.0	4453.8	4515.1
30°	4049.1	4051.6	4051.6	4063.9	4078.6	4110.4	4127.6	4164.4	4208.5	4257.6	4311.6
32.5°	3816.1	3818.6	3818.6	3823.5	3835.7	3850.5	3865.2	3892.2	3926.5	3968.2	4017.2
35°	3539.0	3539.0	3536.5	3539.0	3546.4	3546.4	3558.6	3546.4	3563.6	3588.1	3624.8
37.5°	3283.9	3279.0	3274.2	3269.2	3261.8	3249.6	3232.5	3203.0	3195.6	3185.8	3188.2
40°	3058.3	3055.9	3041.2	3028.8	3004.3	2974.9	2933.3	2881.8	2840.1	2791.0	2749.3
42.5°	2808.2	2805.7	2793.4	2771.3	2744.4	2700.3	2634.0	2565.4	2482.0	2408.4	2332.4
45°	2513.8	2521.2	2504.0	2479.5	2447.6	2405.9	2332.4	2248.9	2165.5	2069.9	1974.2
47.5°	2207.2	2204.8	2192.6	2177.9	2150.9	2109.2	2060.2	1969.4	1881.1	1792.8	1694.7
50°	1922.8	1913.0	1908.0	1893.4	1876.2	1841.9	1790.3	1716.7	1638.3	1554.9	1464.2
52.5°	1653.0	1653.0	1640.7	1630.9	1616.2	1589.2	1545.1	1486.3	1420.0	1341.5	1245.9
55°	1427.4	1422.5	1410.2	1397.9	1383.2	1366.0	1326.9	1277.8	1206.6	1130.6	1047.2
57.5°	1187.0	1184.5	1179.7	1164.9	1157.6	1140.4	1096.3	1047.2	986.0	919.7	851.0
60°	971.2	961.4	951.5	941.7	929.5	912.4	882.9	841.2	789.7	730.9	662.2
62.5°	777.5	792.1	762.8	762.8	738.2	723.5	696.5	672.0	618.0	564.1	505.2
65°	605.8	605.8	593.5	583.7	568.9	551.8	524.8	500.3	461.0	419.3	377.6
67.5°	463.6	461.0	448.8	439.0	426.7	416.9	397.3	367.9	338.5	304.2	269.7
70°	340.9	338.5	336.0	318.8	309.0	296.8	282.0	262.5	240.4	215.8	183.9
72.5°	245.2	245.2	237.9	230.6	220.8	210.9	196.2	183.9	164.3	147.2	125.1
75°	157.0	154.6	154.6	142.2	142.2	127.5	117.7	110.3	100.5	90.8	71.2
77.5°	112.9	110.3	107.9	103.0	98.1	93.2	85.8	76.0	68.6	58.9	51.5
80°	76.0	71.2	68.6	68.6	61.3	58.9	61.3	46.6	44.1	36.7	31.9
82.5°	46.6	46.6	44.1	44.1	41.7	39.3	31.9	31.9	29.5	27.0	22.1
85°	24.5	31.9	22.1	24.5	22.1	24.5	22.1	17.2	14.7	12.2	12.2
87.5°	14.7	9.8	9.8	14.7	12.2	9.8	9.8	9.8	7.4	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4
2.5°	5167.5	5184.7	5182.2	5204.3	5211.7	5228.8	5228.8	5241.0	5248.4	5265.6	5280.3
5°	5044.9	5071.8	5079.2	5106.2	5128.3	5155.2	5172.4	5199.3	5223.9	5260.7	5295.0
7.5°	4968.9	4990.9	5005.6	5037.5	5062.0	5091.4	5120.9	5157.6	5192.0	5236.2	5285.2
10°	4932.0	4961.5	4983.5	5015.4	5044.9	5076.8	5106.2	5147.9	5187.1	5243.6	5297.5
12.5°	4922.2	4956.6	4983.5	5027.7	5057.1	5091.4	5125.7	5172.4	5214.1	5272.9	5334.3
15°	4922.2	4968.9	5005.6	5054.7	5089.0	5133.1	5170.0	5216.5	5263.1	5324.4	5383.3
17.5°	4912.4	4968.9	5015.4	5071.8	5116.0	5160.2	5206.7	5250.9	5299.9	5358.8	5425.0
20°	4873.2	4944.3	5000.7	5066.9	5113.5	5162.6	5209.2	5258.2	5309.8	5371.0	5427.5
22.5°	4804.5	4887.9	4951.7	5022.8	5076.8	5125.7	5172.4	5221.4	5277.9	5336.7	5395.6
25°	4713.8	4792.2	4861.0	4934.4	4988.5	5042.4	5086.6	5143.0	5194.5	5250.9	5297.5
27.5°	4576.4	4659.8	4726.0	4802.1	4851.1	4902.7	4939.4	4986.0	5035.1	5081.6	5118.5
30°	4370.5	4446.5	4515.1	4583.8	4632.8	4669.7	4708.8	4745.7	4777.6	4809.4	4841.3
32.5°	4068.7	4137.5	4203.7	4267.4	4306.7	4338.6	4367.9	4390.0	4407.2	4424.4	4426.8
35°	3654.3	3710.7	3752.3	3808.8	3845.6	3875.0	3875.0	3884.8	3882.4	3875.0	3867.6
37.5°	3190.8	3212.8	3229.9	3252.0	3254.5	3254.5	3239.8	3227.5	3207.9	3203.0	3188.2
40°	2707.6	2678.2	2656.0	2626.7	2609.5	2572.7	2540.9	2518.8	2486.9	2482.0	2477.1
42.5°	2248.9	2180.3	2119.0	2067.5	2008.7	1957.1	1910.5	1876.2	1851.7	1849.2	1851.7
45°	1876.2	1797.7	1706.9	1635.9	1569.6	1505.8	1444.6	1402.9	1380.8	1375.8	1380.8
47.5°	1594.2	1503.4	1415.1	1334.1	1263.1	1191.9	1130.6	1074.2	1047.2	1039.9	1037.4
50°	1371.0	1277.8	1184.5	1101.1	1022.7	951.5	875.5	821.6	787.3	775.0	765.2
52.5°	1152.7	1069.3	973.6	887.8	809.3	725.9	647.5	586.1	551.8	537.1	527.3
55°	961.4	878.0	789.7	706.3	623.0	539.6	461.0	402.2	365.4	348.3	336.0
57.5°	767.6	689.2	613.2	529.8	461.0	380.2	301.6	250.1	218.2	198.7	188.9
60°	593.5	532.2	466.0	397.3	331.1	264.9	201.1	152.0	127.5	112.9	100.5
62.5°	448.8	397.3	353.1	294.3	242.8	186.4	137.4	98.1	76.0	63.8	58.9
65°	323.7	284.5	245.2	208.5	171.7	130.0	93.2	63.8	44.1	36.7	34.3
67.5°	230.6	198.7	169.2	144.7	117.7	93.2	66.2	44.1	34.3	29.5	27.0
70°	161.8	137.4	117.7	95.7	78.4	61.3	51.5	31.9	19.6	22.1	17.2
72.5°	107.9	90.8	81.0	66.2	53.9	44.1	31.9	22.1	22.1	17.2	14.7
75°	58.9	53.9	41.7	31.9	27.0	24.5	9.8	4.9	2.4	7.4	2.4
77.5°	41.7	36.7	31.9	27.0	22.1	17.2	9.8	9.8	7.4	9.8	4.9
80°	27.0	22.1	19.6	19.6	12.2	7.4	4.9	4.9	7.4	2.4	2.4
82.5°	17.2	14.7	12.2	12.2	12.2	7.4	7.4	7.4	7.4	4.9	4.9
85°	9.8	7.4	4.9	4.9	2.4	4.9	0.0	2.4	2.4	0.0	0.0
87.5°	4.9	2.4	2.4	2.4	2.4	0.0	0.0	2.4	0.0	2.4	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°	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4	5248.4
2.5°	5290.1	5299.9	5312.2	5322.0	5344.1	5348.9	5358.8	5368.6	5376.0	5383.3	5385.8
5°	5324.4	5361.3	5395.6	5432.3	5479.0	5510.9	5547.6	5579.5	5611.4	5638.4	5657.9
7.5°	5334.3	5390.6	5442.2	5505.9	5574.6	5633.5	5694.8	5756.1	5819.9	5868.9	5910.6
10°	5353.9	5422.5	5488.8	5564.8	5653.1	5731.5	5807.5	5888.5	5969.5	6038.1	6099.5
12.5°	5388.2	5464.2	5535.4	5618.8	5709.5	5797.8	5881.1	5971.9	6057.8	6133.8	6202.5
15°	5444.6	5515.7	5584.5	5662.9	5753.6	5834.6	5918.0	6006.2	6092.1	6170.6	6234.4
17.5°	5481.4	5547.6	5616.3	5687.4	5763.4	5837.0	5915.5	5994.0	6072.4	6143.6	6202.5
20°	5481.4	5545.2	5596.7	5660.5	5731.5	5795.3	5859.1	5927.8	5996.4	6055.3	6111.7
22.5°	5437.3	5498.5	5537.8	5586.9	5648.2	5702.2	5736.5	5812.5	5864.0	5915.5	5957.2
25°	5334.3	5378.4	5410.3	5444.6	5493.7	5530.4	5559.9	5604.0	5655.5	5675.2	5704.6
27.5°	5147.9	5179.8	5196.9	5204.3	5228.8	5248.4	5253.3	5272.9	5295.0	5299.9	5312.2
30°	4853.6	4856.0	4848.6	4846.2	4833.9	4819.3	4816.7	4814.3	4804.5	4794.7	4797.2
32.5°	4409.6	4397.4	4367.9	4336.1	4304.2	4269.9	4250.2	4225.7	4211.0	4196.3	4179.2
35°	3835.7	3806.4	3764.7	3725.4	3688.6	3661.6	3617.5	3602.7	3588.1	3568.4	3563.6
37.5°	3161.3	3144.1	3104.9	3075.5	3055.9	3043.6	3021.5	3006.8	3006.8	2999.5	2994.5
40°	2464.8	2459.9	2445.2	2452.5	2442.7	2447.6	2445.2	2440.2	2452.5	2452.5	2457.5
42.5°	1849.2	1851.7	1859.1	1863.9	1878.6	1881.1	1893.4	1893.4	1900.8	1908.0	1913.0
45°	1375.8	1385.7	1385.7	1395.5	1410.2	1412.7	1417.5	1420.0	1424.9	1437.2	1442.0
47.5°	1032.5	1034.9	1034.9	1037.4	1042.3	1047.2	1044.8	1047.2	1054.6	1049.7	1054.6
50°	762.8	765.2	757.8	750.4	757.8	757.8	755.4	748.0	755.4	745.6	750.4
52.5°	520.0	517.5	510.1	512.6	507.7	505.2	505.2	500.3	500.3	500.3	490.5
55°	328.7	328.7	323.7	323.7	321.3	316.4	313.9	311.4	309.0	306.6	306.6
57.5°	183.9	186.4	179.1	176.6	179.1	176.6	171.7	171.7	171.7	164.3	169.2
60°	100.5	98.1	95.7	93.2	90.8	93.2	93.2	88.3	88.3	88.3	90.8
62.5°	53.9	53.9	51.5	51.5	49.1	49.1	53.9	46.6	49.1	46.6	49.1
65°	29.5	36.7	27.0	27.0	34.3	31.9	29.5	29.5	31.9	27.0	29.5
67.5°	31.9	22.1	19.6	22.1	19.6	19.6	19.6	24.5	22.1	17.2	22.1
70°	14.7	17.2	17.2	12.2	19.6	9.8	17.2	9.8	14.7	12.2	14.7
72.5°	14.7	14.7	14.7	9.8	14.7	9.8	12.2	12.2	9.8	9.8	14.7
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°	4.9	4.9	2.4	2.4	2.4	2.4	4.9	4.9	4.9	0.0	2.4
80°	4.9	4.9	0.0	2.4	0.0	0.0	2.4	0.0	2.4	0.0	4.9
82.5°	2.4	4.9	2.4	2.4	4.9	4.9	4.9	2.4	2.4	2.4	2.4
85°	0.0	2.4	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	2.4
87.5°	0.0	2.4	0.0	0.0	0.0	0.0	2.4	2.4	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: P249757

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5248.4	5248.4	5248.4	5248.4
2.5°	5388.2	5390.6	5395.6	5393.2
5°	5672.7	5692.4	5702.2	5699.7
7.5°	5940.0	5974.4	5994.0	5994.0
10°	6146.0	6185.3	6214.7	6219.6
12.5°	6256.4	6300.6	6339.8	6330.0
15°	6288.3	6332.5	6371.6	6364.3
17.5°	6251.5	6295.6	6325.1	6320.2
20°	6151.0	6187.7	6217.2	6214.7
22.5°	5994.0	6025.9	6050.4	6047.9
25°	5729.1	5751.2	5770.8	5761.0
27.5°	5322.0	5329.4	5341.6	5326.9
30°	4780.0	4784.8	4789.8	4787.4
32.5°	4171.8	4169.3	4164.4	4159.5
35°	3556.2	3556.2	3558.6	3543.9
37.5°	2997.0	2994.5	3001.9	2994.5
40°	2462.3	2459.9	2469.7	2457.5
42.5°	1920.3	1927.7	1930.1	1930.1
45°	1444.6	1447.0	1449.4	1449.4
47.5°	1054.6	1057.0	1069.3	1054.6
50°	745.6	748.0	750.4	745.6
52.5°	492.9	495.5	492.9	485.6
55°	301.6	304.2	304.2	304.2
57.5°	161.8	164.3	164.3	161.8
60°	88.3	85.8	88.3	83.4
62.5°	46.6	51.5	49.1	44.1
65°	29.5	29.5	29.5	34.3
67.5°	24.5	19.6	22.1	17.2
70°	14.7	17.2	17.2	12.2
72.5°	12.2	12.2	12.2	14.7
75°	0.0	0.0	0.0	0.0
77.5°	4.9	4.9	4.9	2.4
80°	2.4	0.0	2.4	0.0
82.5°	2.4	2.4	4.9	2.4
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)