

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: P249764

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBSWOLI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249764
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 EC8B90950 8LBSW0LI
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 5000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9190.0 lumens
Efficiency: N/A
Efficacy: 106.7 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

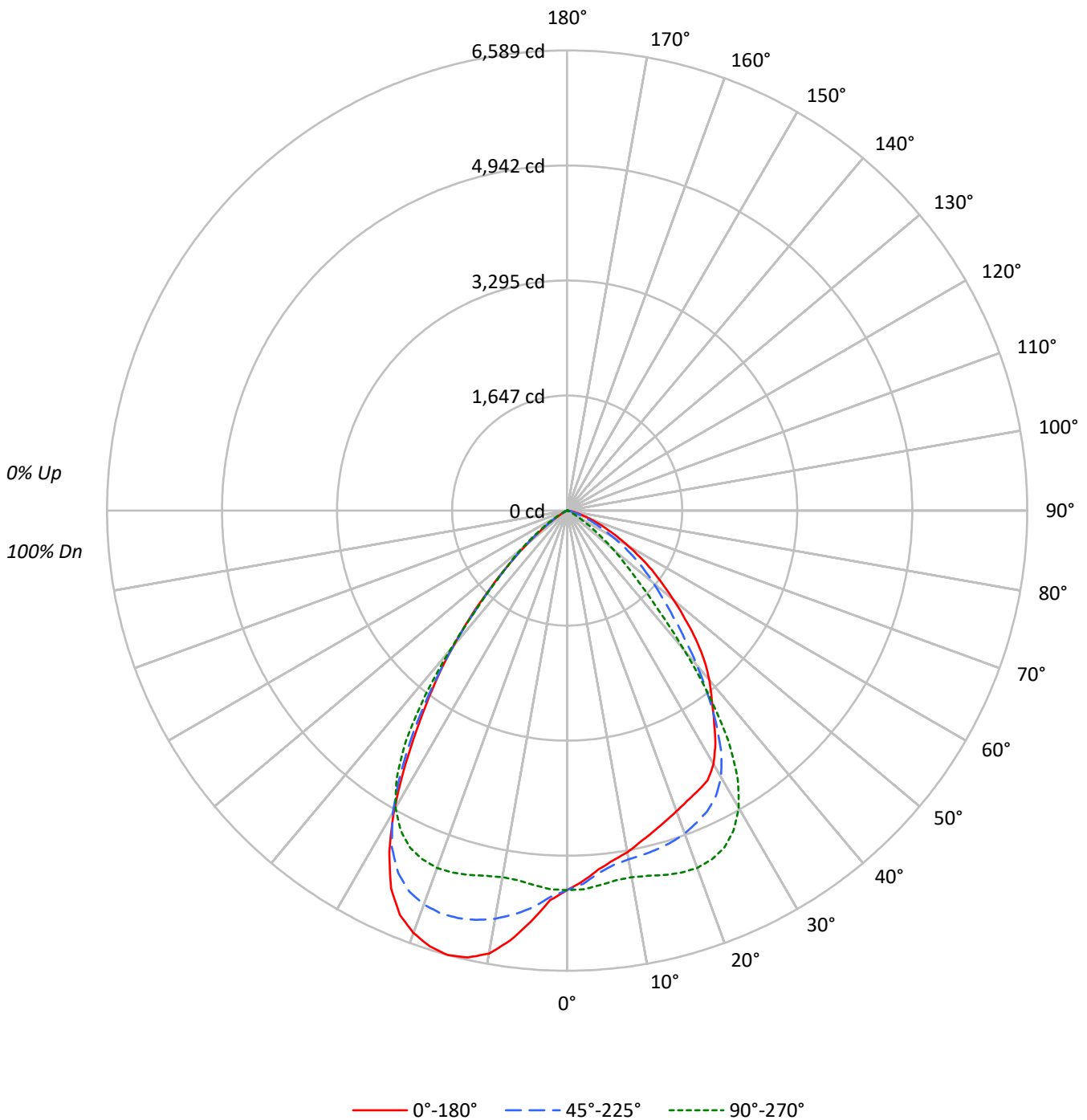
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P249764

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSW0LI

Luminous Intensity Polar Plot





TEST NUMBER: P249764

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSW0LI

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°	167568	167568	167568
5°	159640	166635	182673
10°	155524	166893	201637
15°	151997	172422	210361
20°	150324	178653	211150
25°	150676	181175	202947
30°	149278	174957	176492
35°	137936	151412	138128
40°	127464	104978	102422
45°	113501	63342	65444
50°	95504	40810	37035
55°	79454	22386	16929
60°	62018	9707	5322
65°	45764	4823	2590
70°	31826	2975	1136
75°	19361	608	0
80°	13975	906	0
85°	8987	885	0



TEST NUMBER: P249764

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSW0LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	522.4	5.7
10°-20°	1563.5	17.0
20°-30°	2394.3	26.1
30°-40°	2347.2	25.5
40°-50°	1413.5	15.4
50°-60°	650.6	7.1
60°-70°	228.6	2.5
70°-80°	59.8	0.7
80°-90°	10.2	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°	4480.2	48.8
0°-40°	6827.4	74.3
0°-60°	8891.5	96.8
0°-90°	9190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9190.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5434	5434	5434	5434	5434	
5°	5157	5206	5383	5706	5901	487
15°	4761	5018	5401	6041	6589	1345
25°	4428	4748	5325	5726	5965	2040
35°	3664	3715	4022	3791	3669	2295
45°	2603	2143	1452	1463	1501	1996
55°	1478	1171	416	328	315	1319
65°	627	434	66	33	36	639
75°	162	94	5	0	0	197
85°	25	13	2	0	0	35
90°	0	0	0	0	0	



TEST NUMBER: P249764

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSW0LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1
2.5°	5307.1	5312.2	5312.2	5312.2	5322.3	5324.9	5322.3	5324.9	5330.0	5347.7	5355.4
5°	5157.3	5149.7	5154.8	5152.2	5164.9	5172.6	5167.4	5175.1	5192.8	5205.6	5218.2
7.5°	5050.7	5050.7	5050.7	5055.7	5063.3	5078.6	5076.1	5081.1	5098.9	5116.6	5134.4
10°	4966.9	4964.4	4964.4	4977.0	4987.1	5004.9	5010.0	5025.3	5048.1	5071.0	5091.2
12.5°	4857.6	4860.3	4872.9	4885.7	4908.4	4936.3	4951.6	4972.0	5007.5	5045.6	5068.5
15°	4761.2	4763.7	4773.9	4799.2	4827.2	4860.3	4893.2	4926.2	4969.4	5017.7	5058.3
17.5°	4667.2	4669.7	4677.3	4705.4	4740.9	4784.1	4822.1	4865.3	4921.2	4977.0	5027.8
20°	4580.9	4578.4	4591.0	4616.4	4662.2	4702.7	4740.9	4791.7	4852.6	4921.2	4979.5
22.5°	4497.1	4497.1	4509.8	4535.2	4575.9	4616.4	4657.1	4710.4	4771.3	4837.4	4905.9
25°	4428.5	4426.0	4443.7	4456.5	4486.9	4527.6	4570.7	4613.9	4674.8	4748.5	4814.5
27.5°	4354.9	4352.4	4354.9	4370.2	4398.1	4428.5	4461.5	4499.7	4550.5	4611.4	4674.8
30°	4192.4	4194.9	4194.9	4207.6	4222.9	4255.8	4273.6	4311.7	4357.4	4408.2	4464.1
32.5°	3951.1	3953.7	3953.7	3958.8	3971.4	3986.7	4001.9	4029.8	4065.4	4108.6	4159.3
35°	3664.2	3664.2	3661.6	3664.2	3671.9	3671.9	3684.5	3671.9	3689.6	3715.0	3753.1
37.5°	3400.1	3395.0	3390.0	3384.9	3377.2	3364.6	3346.8	3316.3	3308.7	3298.5	3301.0
40°	3166.5	3164.0	3148.8	3136.0	3110.6	3080.2	3037.0	2983.7	2940.5	2889.8	2846.6
42.5°	2907.5	2904.9	2892.3	2869.4	2841.5	2795.8	2727.2	2656.2	2569.8	2493.6	2414.9
45°	2602.7	2610.4	2592.6	2567.2	2534.2	2491.0	2414.9	2328.5	2242.1	2143.2	2044.1
47.5°	2285.3	2282.8	2270.2	2254.9	2227.0	2183.8	2133.0	2039.1	1947.6	1856.3	1754.7
50°	1990.8	1980.6	1975.5	1960.4	1942.6	1907.1	1853.7	1777.5	1696.2	1609.9	1515.9
52.5°	1711.5	1711.5	1698.8	1688.6	1673.4	1645.4	1599.8	1538.8	1470.3	1389.0	1290.0
55°	1477.9	1472.8	1460.1	1447.4	1432.1	1414.4	1373.8	1323.0	1249.3	1170.6	1084.3
57.5°	1229.0	1226.4	1221.4	1206.2	1198.5	1180.8	1135.1	1084.3	1020.8	952.3	881.1
60°	1005.6	995.4	985.2	975.1	962.4	944.6	914.1	871.0	817.7	756.7	685.6
62.5°	805.0	820.2	789.7	789.7	764.4	749.1	721.2	695.8	639.9	584.1	523.1
65°	627.2	627.2	614.5	604.3	589.1	571.3	543.4	518.0	477.3	434.2	391.0
67.5°	480.0	477.3	464.7	454.6	441.8	431.7	411.4	380.9	350.5	314.9	279.3
70°	353.0	350.5	347.8	330.1	319.9	307.3	292.0	271.8	248.9	223.5	190.4
72.5°	253.9	253.9	246.4	238.7	228.6	218.3	203.2	190.4	170.2	152.4	129.5
75°	162.5	160.0	160.0	147.3	147.3	132.0	121.9	114.2	104.1	94.0	73.7
77.5°	116.9	114.2	111.7	106.6	101.6	96.5	88.8	78.7	71.1	60.9	53.3
80°	78.7	73.7	71.1	71.1	63.4	60.9	63.4	48.3	45.7	38.0	33.0
82.5°	48.3	48.3	45.7	45.7	43.2	40.7	33.0	33.0	30.5	27.9	22.9
85°	25.4	33.0	22.9	25.4	22.9	25.4	22.9	17.8	15.3	12.6	12.6
87.5°	15.3	10.1	10.1	15.3	12.6	10.1	10.1	10.1	7.6	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: P249764

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1
2.5°	5350.3	5368.1	5365.5	5388.4	5396.0	5413.8	5413.8	5426.4	5434.1	5451.8	5467.1
5°	5223.4	5251.3	5258.9	5286.8	5309.7	5337.6	5355.4	5383.3	5408.7	5446.8	5482.4
7.5°	5144.7	5167.4	5182.7	5215.7	5241.1	5271.5	5302.1	5340.1	5375.6	5421.4	5472.2
10°	5106.5	5137.0	5159.8	5192.8	5223.4	5256.4	5286.8	5330.0	5370.6	5429.0	5484.9
12.5°	5096.4	5131.9	5159.8	5205.6	5236.0	5271.5	5307.1	5355.4	5398.5	5459.5	5523.0
15°	5096.4	5144.7	5182.7	5233.5	5269.0	5314.7	5352.9	5401.0	5449.3	5512.8	5573.7
17.5°	5086.2	5144.7	5192.8	5251.3	5296.9	5342.7	5390.9	5436.7	5487.4	5548.4	5616.9
20°	5045.6	5119.3	5177.6	5246.1	5294.4	5345.2	5393.5	5444.2	5497.6	5561.1	5619.5
22.5°	4974.5	5060.8	5126.9	5200.5	5256.4	5307.1	5355.4	5406.2	5464.6	5525.5	5586.5
25°	4880.5	4961.7	5032.9	5109.0	5164.9	5220.7	5266.5	5324.9	5378.3	5436.7	5484.9
27.5°	4738.3	4824.6	4893.2	4972.0	5022.7	5076.1	5114.1	5162.4	5213.2	5261.4	5299.6
30°	4525.1	4603.8	4674.8	4745.9	4796.7	4834.9	4875.4	4913.6	4946.6	4979.5	5012.5
32.5°	4212.7	4283.8	4352.4	4418.3	4459.0	4492.0	4522.4	4545.3	4563.1	4580.9	4583.4
35°	3783.6	3841.9	3885.1	3943.5	3981.7	4012.1	4012.1	4022.2	4019.7	4012.1	4004.5
37.5°	3303.6	3326.4	3344.2	3367.1	3369.6	3369.6	3354.4	3341.7	3321.4	3316.3	3301.0
40°	2803.4	2772.9	2750.0	2719.6	2701.8	2663.7	2630.8	2607.9	2574.8	2569.8	2564.7
42.5°	2328.5	2257.4	2194.0	2140.7	2079.7	2026.3	1978.1	1942.6	1917.2	1914.6	1917.2
45°	1942.6	1861.3	1767.3	1693.7	1625.2	1559.1	1495.7	1452.5	1429.6	1424.5	1429.6
47.5°	1650.6	1556.6	1465.2	1381.3	1307.7	1234.1	1170.6	1112.2	1084.3	1076.7	1074.1
50°	1419.5	1323.0	1226.4	1140.1	1058.9	985.2	906.5	850.7	815.1	802.4	792.3
52.5°	1193.5	1107.2	1008.1	919.2	837.9	751.6	670.4	606.8	571.3	556.1	545.9
55°	995.4	909.1	817.7	731.3	645.0	558.7	477.3	416.4	378.4	360.6	347.8
57.5°	794.8	713.6	634.9	548.5	477.3	393.6	312.3	259.0	226.0	205.7	195.6
60°	614.5	551.0	482.5	411.4	342.8	274.3	208.2	157.4	132.0	116.9	104.1
62.5°	464.7	411.4	365.6	304.7	251.4	192.9	142.3	101.6	78.7	66.1	60.9
65°	335.2	294.5	253.9	215.8	177.8	134.6	96.5	66.1	45.7	38.0	35.5
67.5°	238.7	205.7	175.2	149.8	121.9	96.5	68.6	45.7	35.5	30.5	27.9
70°	167.5	142.3	121.9	99.1	81.2	63.4	53.3	33.0	20.3	22.9	17.8
72.5°	111.7	94.0	83.8	68.6	55.8	45.7	33.0	22.9	22.9	17.8	15.3
75°	60.9	55.8	43.2	33.0	27.9	25.4	10.1	5.1	2.5	7.6	2.5
77.5°	43.2	38.0	33.0	27.9	22.9	17.8	10.1	10.1	7.6	10.1	5.1
80°	27.9	22.9	20.3	20.3	12.6	7.6	5.1	5.1	7.6	2.5	2.5
82.5°	17.8	15.3	12.6	12.6	12.6	7.6	7.6	7.6	7.6	5.1	5.1
85°	10.1	7.6	5.1	5.1	2.5	5.1	0.0	2.5	2.5	0.0	0.0
87.5°	5.1	2.5	2.5	2.5	2.5	0.0	0.0	2.5	0.0	2.5	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: P249764

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1	5434.1
2.5°	5477.2	5487.4	5500.1	5510.3	5533.2	5538.2	5548.4	5558.5	5566.2	5573.7	5576.3
5°	5512.8	5550.9	5586.5	5624.5	5672.8	5705.8	5743.9	5776.9	5809.9	5837.8	5858.1
7.5°	5523.0	5581.3	5634.7	5700.7	5771.8	5832.8	5896.3	5959.7	6025.8	6076.5	6119.7
10°	5543.3	5614.4	5682.9	5761.6	5853.1	5934.3	6013.0	6096.8	6180.6	6251.7	6315.3
12.5°	5578.8	5657.5	5731.2	5817.5	5911.5	6002.9	6089.2	6183.2	6272.1	6350.8	6421.9
15°	5637.3	5710.8	5782.0	5863.2	5957.2	6041.0	6127.3	6218.7	6307.6	6388.9	6454.9
17.5°	5675.3	5743.9	5814.9	5888.6	5967.3	6043.5	6124.7	6206.0	6287.3	6360.9	6421.9
20°	5675.3	5741.4	5794.7	5860.7	5934.3	6000.4	6066.4	6137.5	6208.6	6269.5	6327.9
22.5°	5629.6	5693.1	5733.7	5784.5	5848.0	5903.9	5939.4	6018.1	6071.4	6124.7	6167.9
25°	5523.0	5568.7	5601.7	5637.3	5688.0	5726.1	5756.6	5802.3	5855.6	5876.0	5906.4
27.5°	5330.0	5363.0	5380.8	5388.4	5413.8	5434.1	5439.2	5459.5	5482.4	5487.4	5500.1
30°	5025.3	5027.8	5020.2	5017.7	5004.9	4989.8	4987.1	4984.6	4974.5	4964.4	4966.9
32.5°	4565.6	4553.0	4522.4	4489.5	4456.5	4421.0	4400.6	4375.2	4359.9	4344.8	4327.0
35°	3971.4	3941.0	3897.8	3857.2	3819.1	3791.1	3745.5	3730.2	3715.0	3694.7	3689.6
37.5°	3273.1	3255.4	3214.7	3184.3	3164.0	3151.3	3128.4	3113.2	3113.2	3105.6	3100.5
40°	2551.9	2546.9	2531.7	2539.3	2529.2	2534.2	2531.7	2526.5	2539.3	2539.3	2544.4
42.5°	1914.6	1917.2	1924.8	1929.8	1945.1	1947.6	1960.4	1960.4	1968.0	1975.5	1980.6
45°	1424.5	1434.7	1434.7	1444.9	1460.1	1462.6	1467.7	1470.3	1475.3	1488.0	1493.1
47.5°	1069.0	1071.5	1071.5	1074.1	1079.2	1084.3	1081.8	1084.3	1091.9	1086.8	1091.9
50°	789.7	792.3	784.6	777.0	784.6	784.6	782.1	774.5	782.1	772.0	777.0
52.5°	538.4	535.8	528.1	530.7	525.6	523.1	523.1	518.0	518.0	518.0	507.9
55°	340.3	340.3	335.2	335.2	332.7	327.6	325.1	322.4	319.9	317.4	317.4
57.5°	190.4	192.9	185.4	182.8	185.4	182.8	177.8	177.8	177.8	170.2	175.2
60°	104.1	101.6	99.1	96.5	94.0	96.5	96.5	91.5	91.5	91.5	94.0
62.5°	55.8	55.8	53.3	53.3	50.8	50.8	55.8	48.3	50.8	48.3	50.8
65°	30.5	38.0	27.9	27.9	35.5	33.0	30.5	30.5	33.0	27.9	30.5
67.5°	33.0	22.9	20.3	22.9	20.3	20.3	20.3	25.4	22.9	17.8	22.9
70°	15.3	17.8	17.8	12.6	20.3	10.1	17.8	10.1	15.3	12.6	15.3
72.5°	15.3	15.3	15.3	10.1	15.3	10.1	12.6	12.6	10.1	10.1	15.3
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°	5.1	5.1	2.5	2.5	2.5	2.5	5.1	5.1	5.1	0.0	2.5
80°	5.1	5.1	0.0	2.5	0.0	0.0	2.5	0.0	2.5	0.0	5.1
82.5°	2.5	5.1	2.5	2.5	5.1	5.1	5.1	2.5	2.5	2.5	2.5
85°	0.0	2.5	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	2.5
87.5°	0.0	2.5	0.0	0.0	0.0	0.0	2.5	2.5	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: P249764

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBSWOLI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5434.1	5434.1	5434.1	5434.1
2.5°	5578.8	5581.3	5586.5	5583.9
5°	5873.4	5893.7	5903.9	5901.4
7.5°	6150.1	6185.8	6206.0	6206.0
10°	6363.5	6404.1	6434.5	6439.6
12.5°	6477.7	6523.5	6564.1	6553.9
15°	6510.7	6556.5	6597.1	6589.4
17.5°	6472.7	6518.4	6548.9	6543.7
20°	6368.6	6406.6	6437.1	6434.5
22.5°	6206.0	6239.1	6264.5	6261.9
25°	5931.8	5954.7	5975.0	5964.8
27.5°	5510.3	5517.9	5530.5	5515.4
30°	4949.1	4954.1	4959.2	4956.7
32.5°	4319.4	4316.8	4311.7	4306.6
35°	3682.0	3682.0	3684.5	3669.3
37.5°	3103.0	3100.5	3108.1	3100.5
40°	2549.4	2546.9	2557.1	2544.4
42.5°	1988.3	1995.9	1998.4	1998.4
45°	1495.7	1498.2	1500.7	1500.7
47.5°	1091.9	1094.4	1107.2	1091.9
50°	772.0	774.5	777.0	772.0
52.5°	510.4	513.0	510.4	502.7
55°	312.3	314.9	314.9	314.9
57.5°	167.5	170.2	170.2	167.5
60°	91.5	88.8	91.5	86.3
62.5°	48.3	53.3	50.8	45.7
65°	30.5	30.5	30.5	35.5
67.5°	25.4	20.3	22.9	17.8
70°	15.3	17.8	17.8	12.6
72.5°	12.6	12.6	12.6	15.3
75°	0.0	0.0	0.0	0.0
77.5°	5.1	5.1	5.1	2.5
80°	2.5	0.0	2.5	0.0
82.5°	2.5	2.5	5.1	2.5
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)