

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: P249112

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249112
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: LSR8B90D010 EC8B90840 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9497.0 lumens
Efficiency: N/A
Efficacy: 110.3 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

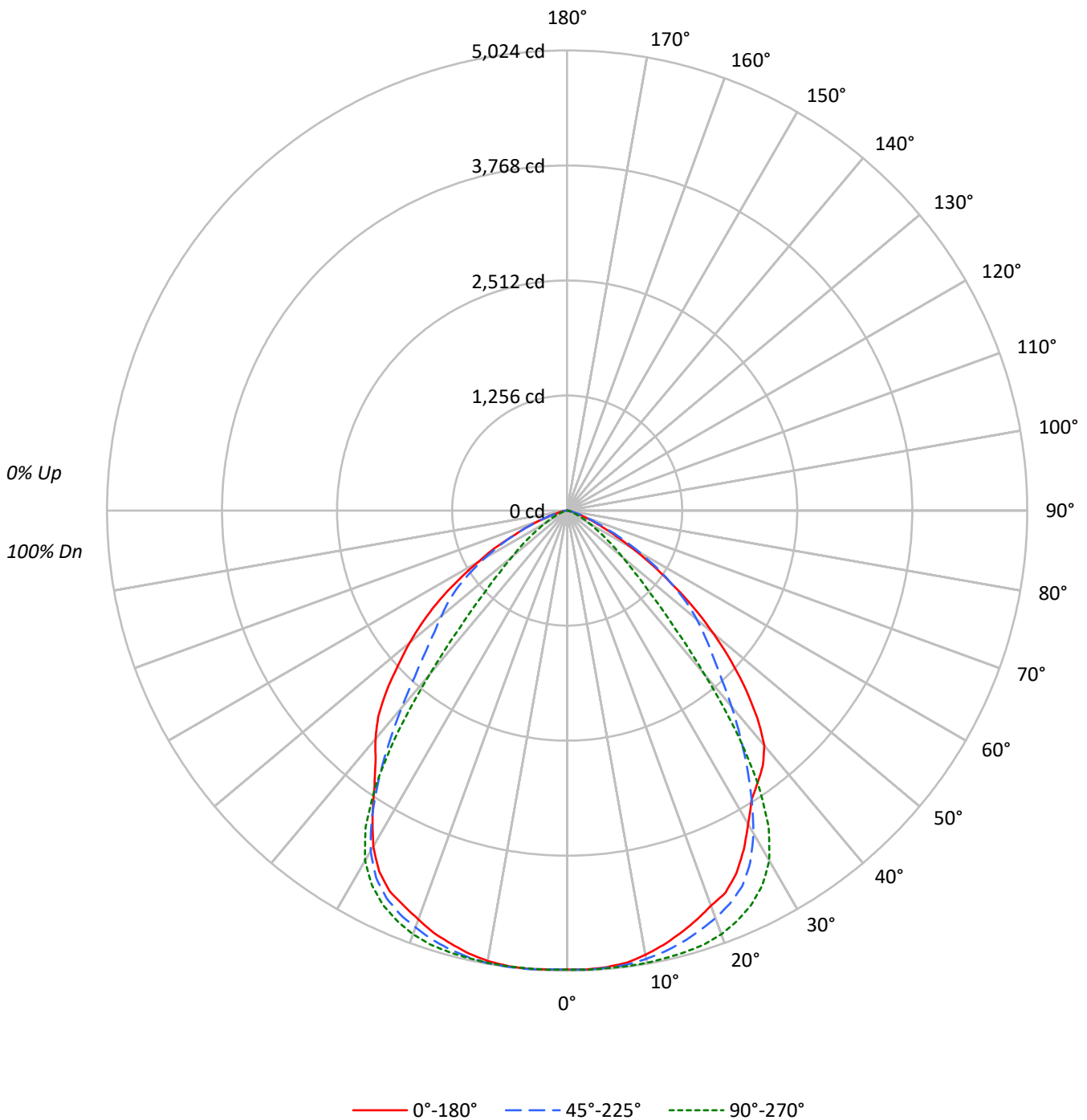
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	154515	154515	154515
5°	154854	155272	155439
10°	154202	156983	156310
15°	152495	159279	156275
20°	150665	161517	155869
25°	148709	161703	156031
30°	140686	157157	150741
35°	136487	136584	138004
40°	134794	93977	131006
45°	120108	56417	121748
50°	99870	37548	107613
55°	74900	25886	91239
60°	50757	17250	68839
65°	30616	11186	47296
70°	16977	6068	29094
75°	7697	2562	15060
80°	6677	2859	10513
85°	7607	3786	10473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	478.2	5.0
10°-20°	1388.8	14.6
20°-30°	2107.9	22.2
30°-40°	2213.9	23.3
40°-50°	1659.9	17.5
50°-60°	1065.0	11.2
60°-70°	455.6	4.8
70°-80°	107.6	1.1
80°-90°	20.0	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°	3974.9	41.9
0°-40°	6188.9	65.2
0°-60°	8913.7	93.9
0°-90°	9497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9497.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5011	5011	5011	5011	5011	
5°	5003	5011	5016	5024	5022	475
15°	4777	4876	4989	4957	4895	1347
25°	4371	4524	4753	4666	4586	1997
35°	3626	3424	3628	3585	3666	2276
45°	2754	2251	1294	2187	2792	2109
55°	1393	1393	482	1452	1697	1264
65°	420	495	153	637	648	448
75°	65	75	22	129	126	94
85°	22	13	11	22	30	23
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°	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8
2.5°	5013.5	5018.9	5016.2	5016.2	5013.5	5016.2	5016.2	5021.6	5021.6	5016.2	5013.5
5°	5002.7	5008.1	5008.1	5002.7	5002.7	5016.2	5008.1	5013.5	5013.5	5010.8	5010.8
7.5°	4978.6	4978.6	4989.3	4981.3	4981.3	4989.3	4986.6	4992.0	4997.4	5000.1	5000.1
10°	4924.7	4930.1	4932.8	4932.8	4935.5	4943.5	4948.9	4959.7	4965.1	4970.5	4973.2
12.5°	4857.5	4865.6	4868.3	4865.6	4873.7	4884.4	4897.9	4911.3	4919.4	4930.1	4938.2
15°	4776.8	4776.8	4782.2	4790.3	4795.7	4811.8	4825.2	4841.3	4862.9	4876.4	4889.8
17.5°	4688.1	4693.5	4701.5	4701.5	4712.3	4739.1	4747.2	4771.4	4795.7	4809.1	4836.0
20°	4591.3	4596.6	4604.7	4610.1	4623.5	4645.0	4661.1	4682.7	4709.6	4733.8	4760.7
22.5°	4515.9	4505.2	4510.5	4515.9	4529.4	4548.2	4567.0	4593.9	4620.8	4645.0	4671.9
25°	4370.7	4373.4	4381.4	4386.8	4403.0	4419.1	4440.6	4472.9	4497.1	4524.0	4553.5
27.5°	4174.3	4177.0	4190.5	4190.5	4203.9	4230.8	4244.2	4271.2	4303.5	4330.3	4365.3
30°	3951.1	3956.4	3956.4	3967.2	3975.3	3988.8	4002.2	4029.1	4045.2	4069.4	4117.9
32.5°	3746.7	3752.0	3749.3	3746.7	3738.6	3735.9	3733.2	3738.6	3744.0	3752.0	3770.9
35°	3625.7	3612.2	3601.5	3582.6	3561.1	3534.2	3510.0	3477.7	3448.1	3423.9	3397.0
37.5°	3510.0	3507.3	3491.2	3464.2	3421.2	3372.8	3316.4	3246.4	3176.4	3101.2	3028.6
40°	3348.6	3340.5	3327.1	3289.4	3241.0	3181.8	3106.6	3020.5	2907.5	2791.8	2673.5
42.5°	3074.2	3076.9	3060.8	3031.2	2985.5	2929.0	2851.0	2756.9	2635.9	2498.7	2345.4
45°	2754.2	2754.2	2748.8	2724.6	2692.3	2646.6	2587.4	2509.4	2391.1	2251.2	2087.1
47.5°	2420.7	2423.4	2415.3	2409.9	2396.5	2366.9	2323.9	2264.7	2181.3	2046.8	1882.7
50°	2081.8	2081.8	2095.2	2092.5	2092.5	2081.8	2063.0	2028.0	1955.4	1847.8	1694.5
52.5°	1742.9	1748.3	1756.4	1767.1	1780.5	1802.0	1780.5	1764.4	1718.7	1635.3	1503.5
55°	1393.2	1398.6	1412.0	1430.9	1447.1	1468.6	1473.9	1473.9	1449.7	1393.2	1293.7
57.5°	1094.7	1086.6	1097.4	1113.5	1135.0	1156.6	1172.7	1191.5	1188.8	1151.2	1070.5
60°	823.0	825.7	833.8	850.0	866.1	884.9	906.4	922.5	930.6	911.8	860.7
62.5°	599.8	599.8	610.5	626.7	634.7	661.7	675.1	683.2	691.2	688.5	656.3
65°	419.6	424.9	430.3	438.4	446.5	462.6	470.7	486.8	492.2	494.9	470.7
67.5°	295.9	287.8	293.2	298.5	306.6	317.4	333.5	333.5	341.6	341.6	325.4
70°	188.3	188.3	191.0	199.0	204.4	207.1	212.5	217.8	225.9	223.2	223.2
72.5°	126.4	123.7	126.4	129.1	131.8	139.8	139.8	142.5	147.9	150.6	139.8
75°	64.6	67.3	72.6	70.0	78.0	72.6	75.3	83.4	80.7	75.3	75.3
77.5°	53.8	53.8	53.8	51.1	56.5	56.5	53.8	59.2	56.5	56.5	53.8
80°	37.6	40.3	37.6	34.9	37.6	34.9	34.9	34.9	34.9	34.9	32.2
82.5°	29.6	24.2	26.9	24.2	26.9	26.9	24.2	21.5	21.5	24.2	21.5
85°	21.5	16.1	18.8	18.8	16.1	16.1	16.1	16.1	16.1	13.4	13.4
87.5°	13.4	8.1	8.1	8.1	10.7	10.7	10.7	8.1	10.7	10.7	5.4
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°	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8
2.5°	5018.9	5016.2	5021.6	5018.9	5018.9	5016.2	5018.9	5016.2	5021.6	5010.8	5013.5
5°	5018.9	5013.5	5016.2	5018.9	5021.6	5016.2	5016.2	5016.2	5021.6	5016.2	5018.9
7.5°	5008.1	5005.4	5013.5	5018.9	5016.2	5013.5	5018.9	5016.2	5021.6	5018.9	5024.2
10°	4986.6	4989.3	4994.7	5002.7	5005.4	5008.1	5013.5	5013.5	5021.6	5010.8	5016.2
12.5°	4954.3	4965.1	4978.6	4983.9	4994.7	4994.7	5000.1	5002.7	5008.1	5005.4	5013.5
15°	4914.0	4927.4	4943.5	4957.0	4970.5	4978.6	4986.6	4989.3	4997.4	4989.3	4992.0
17.5°	4865.6	4881.7	4905.9	4922.0	4943.5	4951.6	4962.4	4967.8	4975.9	4970.5	4973.2
20°	4798.3	4817.2	4844.0	4868.3	4881.7	4900.5	4914.0	4922.0	4927.4	4922.0	4924.7
22.5°	4704.2	4731.1	4766.1	4784.9	4811.8	4827.9	4830.6	4849.4	4862.9	4849.4	4854.8
25°	4593.9	4620.8	4647.7	4688.1	4712.3	4731.1	4749.9	4752.6	4766.1	4763.4	4760.7
27.5°	4411.0	4446.0	4491.7	4524.0	4556.2	4585.9	4607.4	4612.7	4626.2	4620.8	4623.5
30°	4160.9	4198.6	4241.6	4292.7	4338.4	4368.0	4394.9	4413.7	4427.1	4419.1	4416.4
32.5°	3805.9	3843.5	3889.2	3940.3	3994.2	4037.1	4069.4	4093.7	4109.8	4104.4	4091.0
35°	3399.7	3410.5	3440.1	3480.4	3526.1	3571.8	3601.5	3628.3	3647.1	3652.5	3652.5
37.5°	2982.8	2947.9	2926.4	2926.4	2953.2	2972.0	2999.0	3015.1	3044.7	3055.4	3063.5
40°	2579.3	2498.7	2423.4	2366.9	2329.3	2326.6	2326.6	2334.6	2361.5	2396.5	2428.8
42.5°	2219.0	2089.8	1974.2	1869.3	1794.0	1751.0	1732.2	1734.8	1756.4	1788.6	1842.4
45°	1931.2	1769.8	1624.6	1498.1	1395.9	1328.7	1296.4	1293.7	1309.8	1347.5	1406.7
47.5°	1707.9	1535.8	1371.7	1226.5	1116.2	1043.6	1005.9	995.2	1005.9	1040.9	1110.8
50°	1522.3	1344.9	1175.4	1024.7	906.4	831.1	796.1	782.7	796.1	825.7	895.6
52.5°	1350.2	1167.3	1008.6	863.4	737.0	672.4	634.7	626.7	634.7	669.7	726.2
55°	1151.2	995.2	839.2	693.9	583.7	519.1	489.5	481.5	489.5	521.8	581.0
57.5°	954.9	820.3	683.2	551.4	457.3	400.7	373.9	363.1	381.9	403.4	473.4
60°	771.9	664.4	548.7	433.0	355.1	303.9	282.4	279.7	285.1	312.0	360.4
62.5°	605.2	516.4	424.9	330.8	266.3	244.8	217.8	215.2	220.5	236.7	274.4
65°	435.7	379.3	309.3	242.1	191.0	161.4	150.6	153.3	158.7	169.5	204.4
67.5°	303.9	263.6	215.2	169.5	131.8	118.3	107.6	104.9	107.6	126.4	145.2
70°	204.4	180.2	145.2	129.1	91.5	72.6	75.3	67.3	78.0	78.0	94.1
72.5°	134.5	118.3	96.8	75.3	64.6	51.1	51.1	48.4	53.8	56.5	70.0
75°	70.0	53.8	53.8	37.6	26.9	13.4	24.2	21.5	18.8	21.5	26.9
77.5°	48.4	40.3	37.6	29.6	26.9	21.5	21.5	21.5	21.5	24.2	26.9
80°	29.6	29.6	21.5	18.8	16.1	13.4	16.1	16.1	16.1	16.1	18.8
82.5°	18.8	16.1	16.1	13.4	13.4	10.7	10.7	10.7	10.7	10.7	16.1
85°	16.1	10.7	10.7	8.1	10.7	18.8	8.1	10.7	10.7	10.7	8.1
87.5°	5.4	8.1	8.1	8.1	5.4	2.7	5.4	8.1	8.1	13.4	10.7
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°	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8	5010.8
2.5°	5018.9	5021.6	5021.6	5018.9	5018.9	5013.5	5024.2	5016.2	5018.9	5029.6	5021.6
5°	5024.2	5026.9	5026.9	5024.2	5024.2	5024.2	5026.9	5026.9	5024.2	5021.6	5026.9
7.5°	5035.0	5032.3	5032.3	5026.9	5026.9	5021.6	5026.9	5018.9	5024.2	5018.9	5026.9
10°	5021.6	5024.2	5021.6	5018.9	5018.9	5016.2	5016.2	5008.1	5010.8	5002.7	5008.1
12.5°	5013.5	5010.8	5010.8	5005.4	5000.1	4994.7	4992.0	4983.9	4983.9	4965.1	4973.2
15°	4992.0	4994.7	4986.6	4975.9	4970.5	4957.0	4951.6	4940.8	4930.1	4916.7	4919.4
17.5°	4973.2	4965.1	4954.3	4943.5	4922.0	4911.3	4900.5	4884.4	4879.0	4862.9	4857.5
20°	4916.7	4911.3	4897.9	4879.0	4865.6	4841.3	4830.6	4814.5	4801.0	4784.9	4776.8
22.5°	4844.0	4838.6	4822.5	4803.7	4782.2	4771.4	4760.7	4731.1	4717.6	4701.5	4698.8
25°	4752.6	4744.5	4728.4	4706.9	4696.1	4666.5	4655.8	4634.2	4628.9	4612.7	4610.1
27.5°	4612.7	4602.0	4583.2	4556.2	4537.4	4518.6	4507.9	4491.7	4486.4	4470.2	4467.5
30°	4403.0	4389.5	4351.8	4341.1	4308.8	4290.0	4290.0	4268.5	4271.2	4260.4	4260.4
32.5°	4072.1	4050.6	4021.0	3999.5	3978.0	3967.2	3967.2	3959.1	3964.5	3964.5	3969.9
35°	3633.7	3604.2	3588.0	3574.5	3574.5	3585.3	3617.6	3625.7	3641.8	3655.2	3666.0
37.5°	3071.5	3068.9	3087.7	3103.9	3144.2	3189.9	3246.4	3294.8	3340.5	3372.8	3405.1
40°	2463.7	2531.0	2584.7	2660.1	2721.9	2810.7	2912.9	2996.3	3074.2	3130.8	3189.9
42.5°	1923.1	2009.2	2122.1	2232.4	2342.7	2463.7	2598.2	2713.9	2816.1	2894.1	2955.9
45°	1498.1	1616.5	1753.7	1893.5	2036.1	2186.7	2326.6	2444.9	2552.5	2633.2	2695.0
47.5°	1207.6	1336.8	1492.7	1646.1	1807.4	1966.1	2122.1	2224.4	2313.1	2377.6	2434.2
50°	997.8	1135.0	1299.1	1473.9	1635.3	1794.0	1928.5	2028.0	2100.6	2157.1	2192.0
52.5°	833.8	979.0	1153.9	1328.7	1490.0	1635.3	1756.4	1831.7	1890.8	1931.2	1963.4
55°	688.5	828.4	992.5	1156.6	1315.2	1452.4	1551.9	1608.4	1654.1	1678.3	1697.1
57.5°	562.2	691.2	841.9	992.5	1129.7	1242.6	1320.6	1377.1	1398.6	1417.4	1414.7
60°	441.1	562.2	699.3	828.4	946.8	1038.2	1094.7	1127.0	1143.1	1151.2	1145.8
62.5°	347.0	457.3	562.2	675.1	761.2	839.2	893.0	893.0	901.0	903.7	911.8
65°	258.2	341.6	433.0	516.4	586.3	637.4	667.1	675.1	685.9	683.2	677.8
67.5°	191.0	252.8	320.0	381.9	430.3	462.6	484.1	503.0	500.3	494.9	492.2
70°	131.8	172.2	231.3	269.0	303.9	336.2	341.6	344.3	347.0	349.7	344.3
72.5°	91.5	121.0	153.3	185.6	207.1	220.5	234.0	236.7	236.7	236.7	234.0
75°	45.7	61.9	91.5	104.9	123.7	129.1	139.8	139.8	147.9	137.2	134.5
77.5°	40.3	48.4	64.6	75.3	83.4	91.5	94.1	102.2	99.5	94.1	96.8
80°	24.2	29.6	40.3	45.7	56.5	59.2	61.9	64.6	61.9	64.6	64.6
82.5°	18.8	21.5	26.9	26.9	34.9	34.9	37.6	37.6	40.3	40.3	40.3
85°	10.7	18.8	16.1	32.2	21.5	21.5	26.9	32.2	26.9	26.9	32.2
87.5°	10.7	10.7	8.1	10.7	10.7	10.7	13.4	16.1	16.1	18.8	16.1
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: P249112

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5010.8	5010.8	5010.8	5010.8
2.5°	5018.9	5024.2	5016.2	5013.5
5°	5026.9	5026.9	5021.6	5021.6
7.5°	5026.9	5026.9	5018.9	5013.5
10°	5005.4	5005.4	4997.4	4992.0
12.5°	4965.1	4965.1	4962.4	4954.3
15°	4914.0	4914.0	4903.2	4895.2
17.5°	4844.0	4849.4	4836.0	4836.0
20°	4768.7	4766.1	4755.3	4749.9
22.5°	4690.8	4685.4	4682.7	4666.5
25°	4607.4	4602.0	4593.9	4585.9
27.5°	4464.8	4462.1	4454.0	4443.3
30°	4246.9	4244.2	4233.5	4233.5
32.5°	3964.5	3961.8	3951.1	3953.8
35°	3671.3	3682.1	3676.7	3666.0
37.5°	3426.6	3434.7	3440.1	3434.7
40°	3222.2	3246.4	3249.1	3254.5
42.5°	3004.3	3036.6	3047.4	3052.7
45°	2743.4	2773.0	2797.2	2791.8
47.5°	2477.1	2498.7	2520.2	2504.1
50°	2221.7	2235.1	2243.2	2243.2
52.5°	1979.6	1979.6	1976.9	1979.6
55°	1702.5	1702.5	1691.8	1697.1
57.5°	1412.0	1417.4	1409.3	1395.9
60°	1143.1	1129.7	1124.3	1116.2
62.5°	890.3	890.3	871.5	895.6
65°	667.1	659.0	650.9	648.2
67.5°	484.1	481.5	473.4	470.7
70°	341.6	330.8	328.1	322.7
72.5°	228.6	228.6	223.2	223.2
75°	139.8	126.4	123.7	126.4
77.5°	96.8	94.1	94.1	91.5
80°	64.6	61.9	67.3	59.2
82.5°	40.3	43.0	40.3	43.0
85°	26.9	32.2	29.6	29.6
87.5°	16.1	16.1	16.1	16.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)