

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: P249193

Luminaire Tested: **LSR8B90D010 EC8B90827 8LBDW0WMH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249193
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 EC8B90827 8LBDW0WMH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 2700 CCT WITH WARM HAZE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8922.0 lumens
Efficiency: N/A
Efficacy: 103.6 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

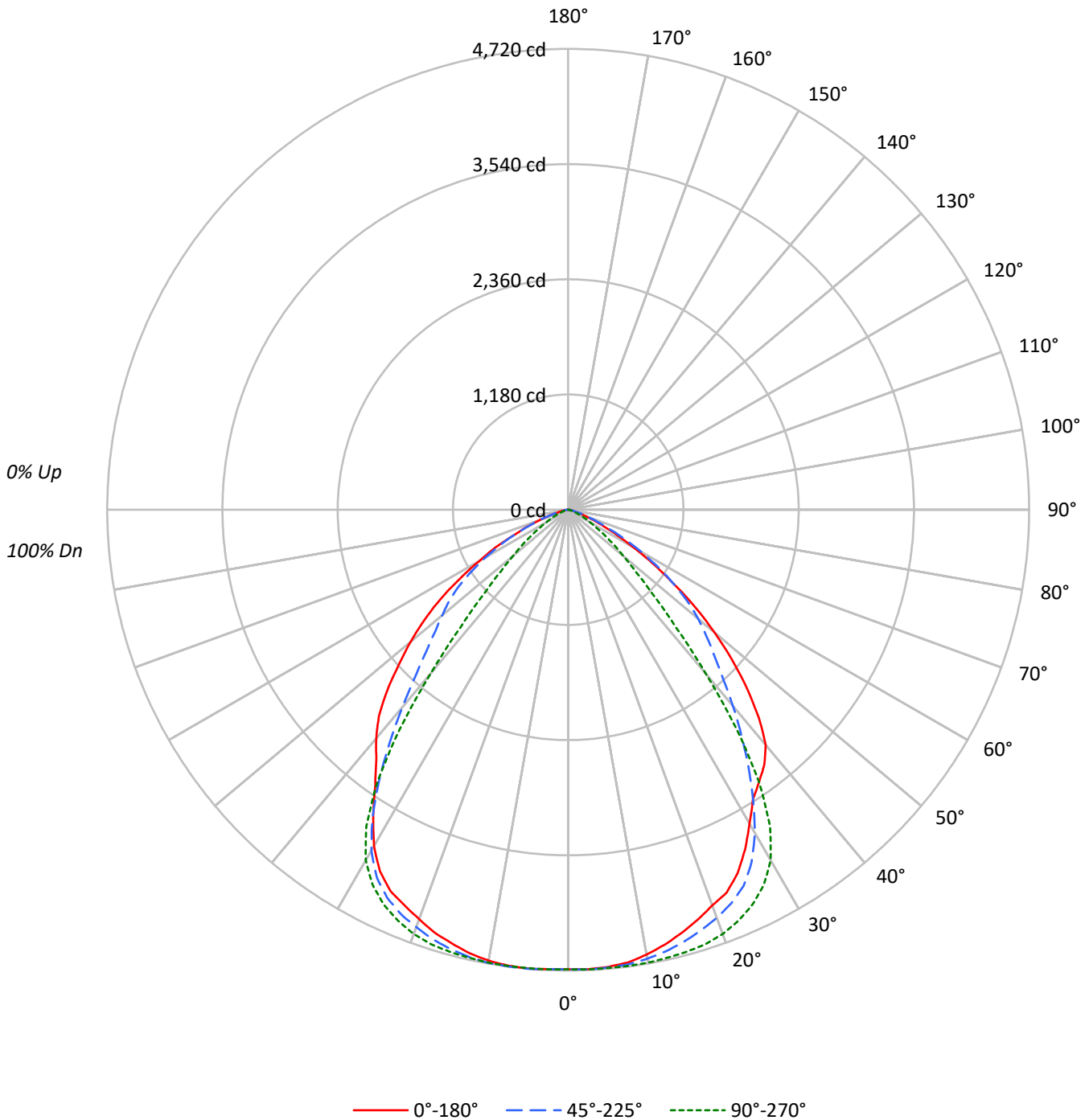
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	145159	145159	145159
5°	145478	145871	146029
10°	144868	147480	146844
15°	143263	149635	146813
20°	141542	151738	146432
25°	139703	151914	146583
30°	132169	147643	141615
35°	128224	128314	129650
40°	126635	88285	123076
45°	112834	53003	114378
50°	93825	35274	101098
55°	70368	24316	85717
60°	47685	16208	64670
65°	28763	10514	44428
70°	15949	5698	27336
75°	7232	2407	14154
80°	6286	2681	9873
85°	7147	3573	9836



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.3	5.0
10°-20°	1304.7	14.6
20°-30°	1980.3	22.2
30°-40°	2079.9	23.3
40°-50°	1559.4	17.5
50°-60°	1000.5	11.2
60°-70°	428.0	4.8
70°-80°	101.1	1.1
80°-90°	18.8	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°	3734.3	41.9
0°-40°	5814.2	65.2
0°-60°	8374.1	93.9
0°-90°	8922.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8922.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4707	4707	4707	4707	4707	
5°	4700	4707	4712	4720	4718	446
15°	4488	4581	4687	4657	4599	1266
25°	4106	4250	4465	4384	4308	1876
35°	3406	3217	3409	3368	3444	2138
45°	2587	2115	1215	2054	2623	1982
55°	1309	1309	452	1364	1594	1187
65°	394	465	144	599	609	421
75°	61	71	20	121	119	88
85°	20	13	10	20	28	21
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°	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4
2.5°	4710.0	4715.0	4712.5	4712.5	4710.0	4712.5	4712.5	4717.6	4717.6	4712.5	4710.0
5°	4699.8	4704.9	4704.9	4699.8	4699.8	4712.5	4704.9	4710.0	4710.0	4707.4	4707.4
7.5°	4677.1	4677.1	4687.2	4679.7	4679.7	4687.2	4684.7	4689.7	4694.8	4697.3	4697.3
10°	4626.6	4631.6	4634.2	4634.2	4636.7	4644.2	4649.3	4659.4	4664.5	4669.5	4672.1
12.5°	4563.4	4571.0	4573.5	4571.0	4578.6	4588.7	4601.3	4613.9	4621.5	4631.6	4639.2
15°	4487.6	4487.6	4492.6	4500.2	4505.3	4520.5	4533.1	4548.2	4568.4	4581.1	4593.7
17.5°	4404.2	4409.3	4416.8	4416.8	4427.0	4452.2	4459.8	4482.6	4505.3	4517.9	4543.2
20°	4313.3	4318.3	4325.9	4331.0	4343.6	4363.8	4378.9	4399.2	4424.4	4447.2	4472.4
22.5°	4242.5	4232.4	4237.4	4242.5	4255.2	4272.8	4290.5	4315.8	4341.0	4363.8	4389.1
25°	4106.0	4108.6	4116.2	4121.2	4136.4	4151.5	4171.8	4202.1	4224.8	4250.1	4277.9
27.5°	3921.6	3924.1	3936.8	3936.8	3949.4	3974.7	3987.3	4012.6	4042.9	4068.1	4101.0
30°	3711.9	3716.9	3716.9	3727.0	3734.6	3747.3	3759.9	3785.2	3800.3	3823.1	3868.6
32.5°	3519.9	3524.9	3522.3	3519.9	3512.3	3509.7	3507.2	3512.3	3517.3	3524.9	3542.5
35°	3406.2	3393.5	3383.4	3365.7	3345.5	3320.2	3297.5	3267.2	3239.3	3216.6	3191.4
37.5°	3297.5	3294.9	3279.8	3254.5	3214.1	3168.6	3115.6	3049.8	2984.1	2913.4	2845.2
40°	3145.9	3138.3	3125.6	3090.3	3044.8	2989.2	2918.5	2837.6	2731.4	2622.8	2511.6
42.5°	2888.1	2890.6	2875.5	2847.7	2804.8	2751.7	2678.4	2590.0	2476.3	2347.4	2203.4
45°	2587.4	2587.4	2582.4	2559.6	2529.3	2486.4	2430.8	2357.5	2246.3	2114.9	1960.8
47.5°	2274.1	2276.6	2269.0	2264.0	2251.4	2223.6	2183.2	2127.6	2049.2	1922.9	1768.7
50°	1955.8	1955.8	1968.4	1965.8	1965.8	1955.8	1938.1	1905.2	1837.0	1735.9	1591.9
52.5°	1637.4	1642.4	1650.0	1660.1	1672.7	1692.9	1672.7	1657.6	1614.6	1536.3	1412.5
55°	1308.9	1313.9	1326.6	1344.2	1359.4	1379.7	1384.7	1384.7	1361.9	1308.9	1215.4
57.5°	1028.4	1020.8	1031.0	1046.1	1066.3	1086.5	1101.7	1119.4	1116.8	1081.5	1005.7
60°	773.2	775.7	783.3	798.5	813.6	831.3	851.5	866.7	874.3	856.6	808.6
62.5°	563.5	563.5	573.6	588.7	596.3	621.6	634.2	641.8	649.4	646.8	616.5
65°	394.2	399.2	404.3	411.9	419.4	434.6	442.2	457.3	462.4	464.9	442.2
67.5°	278.0	270.4	275.4	280.4	288.1	298.2	313.3	313.3	320.9	320.9	305.7
70°	176.9	176.9	179.4	187.0	192.0	194.6	199.6	204.6	212.3	209.7	209.7
72.5°	118.8	116.2	118.8	121.3	123.8	131.4	131.4	133.9	139.0	141.5	131.4
75°	60.7	63.2	68.2	65.7	73.3	68.2	70.7	78.3	75.8	70.7	70.7
77.5°	50.5	50.5	50.5	48.0	53.0	53.0	50.5	55.6	53.0	53.0	50.5
80°	35.4	37.9	35.4	32.8	35.4	32.8	32.8	32.8	32.8	32.8	30.3
82.5°	27.8	22.8	25.3	22.8	25.3	25.3	22.8	20.2	20.2	22.8	20.2
85°	20.2	15.1	17.7	17.7	15.1	15.1	15.1	15.1	15.1	12.6	12.6
87.5°	12.6	7.6	7.6	7.6	10.1	10.1	10.1	7.6	10.1	10.1	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4
2.5°	4715.0	4712.5	4717.6	4715.0	4715.0	4712.5	4715.0	4712.5	4717.6	4707.4	4710.0
5°	4715.0	4710.0	4712.5	4715.0	4717.6	4712.5	4712.5	4712.5	4717.6	4712.5	4715.0
7.5°	4704.9	4702.4	4710.0	4715.0	4712.5	4710.0	4715.0	4712.5	4717.6	4715.0	4720.0
10°	4684.7	4687.2	4692.3	4699.8	4702.4	4704.9	4710.0	4710.0	4717.6	4707.4	4712.5
12.5°	4654.4	4664.5	4677.1	4682.1	4692.3	4692.3	4697.3	4699.8	4704.9	4702.4	4710.0
15°	4616.5	4629.1	4644.2	4656.9	4669.5	4677.1	4684.7	4687.2	4694.8	4687.2	4689.7
17.5°	4571.0	4586.1	4608.9	4624.0	4644.2	4651.8	4661.9	4667.0	4674.6	4669.5	4672.1
20°	4507.8	4525.5	4550.8	4573.5	4586.1	4603.8	4616.5	4624.0	4629.1	4624.0	4626.6
22.5°	4419.4	4444.7	4477.5	4495.2	4520.5	4535.6	4538.1	4555.8	4568.4	4555.8	4560.9
25°	4315.8	4341.0	4366.3	4404.2	4427.0	4444.7	4462.3	4464.9	4477.5	4475.0	4472.4
27.5°	4143.9	4176.8	4219.7	4250.1	4280.4	4308.2	4328.4	4333.4	4346.1	4341.0	4343.6
30°	3908.9	3944.4	3984.8	4032.8	4075.7	4103.5	4128.8	4146.5	4159.1	4151.5	4149.0
32.5°	3575.4	3610.8	3653.8	3701.8	3752.3	3792.7	3823.1	3845.8	3861.0	3855.9	3843.3
35°	3193.9	3204.0	3231.8	3269.7	3312.6	3355.6	3383.4	3408.6	3426.3	3431.4	3431.4
37.5°	2802.2	2769.4	2749.2	2749.2	2774.4	2792.1	2817.4	2832.5	2860.3	2870.4	2878.0
40°	2423.2	2347.4	2276.6	2223.6	2188.2	2185.7	2185.7	2193.2	2218.5	2251.4	2281.7
42.5°	2084.6	1963.3	1854.7	1756.1	1685.4	1645.0	1627.3	1629.8	1650.0	1680.3	1730.8
45°	1814.2	1662.6	1526.2	1407.4	1311.4	1248.2	1217.9	1215.4	1230.5	1265.9	1321.5
47.5°	1604.5	1442.8	1288.7	1152.2	1048.6	980.4	945.0	934.9	945.0	977.9	1043.6
50°	1430.2	1263.4	1104.2	962.7	851.5	780.8	747.9	735.3	747.9	775.7	841.4
52.5°	1268.4	1096.6	947.6	811.1	692.3	631.7	596.3	588.7	596.3	629.1	682.3
55°	1081.5	934.9	788.4	651.9	548.3	487.7	459.9	452.3	459.9	490.2	545.8
57.5°	897.0	770.7	641.8	518.0	429.6	376.5	351.2	341.1	358.8	379.0	444.7
60°	725.2	624.1	515.4	406.8	333.6	285.5	265.3	262.8	267.8	293.1	338.6
62.5°	568.6	485.2	399.2	310.8	250.2	229.9	204.6	202.2	207.2	222.3	257.8
65°	409.4	356.3	290.6	227.4	179.4	151.6	141.5	144.1	149.1	159.2	192.0
67.5°	285.5	247.6	202.2	159.2	123.8	111.2	101.1	98.6	101.1	118.8	136.5
70°	192.0	169.3	136.5	121.3	85.9	68.2	70.7	63.2	73.3	73.3	88.4
72.5°	126.3	111.2	90.9	70.7	60.7	48.0	48.0	45.5	50.5	53.0	65.7
75°	65.7	50.5	50.5	35.4	25.3	12.6	22.8	20.2	17.7	20.2	25.3
77.5°	45.5	37.9	35.4	27.8	25.3	20.2	20.2	20.2	20.2	22.8	25.3
80°	27.8	27.8	20.2	17.7	15.1	12.6	15.1	15.1	15.1	15.1	17.7
82.5°	17.7	15.1	15.1	12.6	12.6	10.1	10.1	10.1	10.1	10.1	15.1
85°	15.1	10.1	10.1	7.6	10.1	17.7	7.6	10.1	10.1	10.1	7.6
87.5°	5.1	7.6	7.6	7.6	5.1	2.5	5.1	7.6	7.6	12.6	10.1
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°	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4	4707.4
2.5°	4715.0	4717.6	4717.6	4715.0	4715.0	4710.0	4720.0	4712.5	4715.0	4725.1	4717.6
5°	4720.0	4722.6	4722.6	4720.0	4720.0	4720.0	4722.6	4722.6	4720.0	4717.6	4722.6
7.5°	4730.2	4727.6	4727.6	4722.6	4722.6	4717.6	4722.6	4715.0	4720.0	4715.0	4722.6
10°	4717.6	4720.0	4717.6	4715.0	4715.0	4712.5	4712.5	4704.9	4707.4	4699.8	4704.9
12.5°	4710.0	4707.4	4707.4	4702.4	4697.3	4692.3	4689.7	4682.1	4682.1	4664.5	4672.1
15°	4689.7	4692.3	4684.7	4674.6	4669.5	4656.9	4651.8	4641.7	4631.6	4619.0	4621.5
17.5°	4672.1	4664.5	4654.4	4644.2	4624.0	4613.9	4603.8	4588.7	4583.6	4568.4	4563.4
20°	4619.0	4613.9	4601.3	4583.6	4571.0	4548.2	4538.1	4523.0	4510.3	4495.2	4487.6
22.5°	4550.8	4545.7	4530.5	4512.9	4492.6	4482.6	4472.4	4444.7	4432.0	4416.8	4414.3
25°	4464.9	4457.3	4442.1	4421.9	4411.8	4384.0	4373.9	4353.7	4348.6	4333.4	4331.0
27.5°	4333.4	4323.4	4305.7	4280.4	4262.7	4245.0	4234.9	4219.7	4214.7	4199.5	4197.0
30°	4136.4	4123.7	4088.4	4078.3	4047.9	4030.2	4030.2	4010.0	4012.6	4002.5	4002.5
32.5°	3825.6	3805.4	3777.5	3757.3	3737.1	3727.0	3727.0	3719.4	3724.5	3724.5	3729.6
35°	3413.7	3385.9	3370.7	3358.1	3358.1	3368.2	3398.6	3406.2	3421.3	3433.9	3444.1
37.5°	2885.6	2883.1	2900.8	2915.9	2953.8	2996.8	3049.8	3095.4	3138.3	3168.6	3198.9
40°	2314.5	2377.7	2428.2	2499.0	2557.1	2640.5	2736.5	2814.8	2888.1	2941.2	2996.8
42.5°	1806.6	1887.5	1993.7	2097.2	2200.8	2314.5	2440.9	2549.5	2645.6	2718.8	2776.9
45°	1407.4	1518.6	1647.5	1778.9	1912.8	2054.3	2185.7	2296.9	2397.9	2473.7	2531.9
47.5°	1134.5	1255.8	1402.4	1546.4	1698.0	1847.1	1993.7	2089.7	2173.0	2233.7	2286.8
50°	937.4	1066.3	1220.5	1384.7	1536.3	1685.4	1811.7	1905.2	1973.4	2026.5	2059.3
52.5°	783.3	919.7	1084.0	1248.2	1399.8	1536.3	1650.0	1720.8	1776.3	1814.2	1844.5
55°	646.8	778.3	932.4	1086.5	1235.6	1364.5	1457.9	1511.0	1554.0	1576.7	1594.4
57.5°	528.1	649.4	790.9	932.4	1061.3	1167.4	1240.7	1293.7	1313.9	1331.6	1329.1
60°	414.4	528.1	657.0	778.3	889.4	975.3	1028.4	1058.7	1073.9	1081.5	1076.4
62.5°	326.0	429.6	528.1	634.2	715.1	788.4	838.9	838.9	846.5	849.0	856.6
65°	242.5	320.9	406.8	485.2	550.8	598.9	626.7	634.2	644.4	641.8	636.8
67.5°	179.4	237.5	300.7	358.8	404.3	434.6	454.8	472.5	470.0	464.9	462.4
70°	123.8	161.7	217.3	252.7	285.5	315.9	320.9	323.4	326.0	328.5	323.4
72.5°	85.9	113.7	144.1	174.4	194.6	207.2	219.9	222.3	222.3	222.3	219.9
75°	43.0	58.1	85.9	98.6	116.2	121.3	131.4	131.4	139.0	128.8	126.3
77.5°	37.9	45.5	60.7	70.7	78.3	85.9	88.4	96.0	93.5	88.4	90.9
80°	22.8	27.8	37.9	43.0	53.0	55.6	58.1	60.7	58.1	60.7	60.7
82.5°	17.7	20.2	25.3	25.3	32.8	32.8	35.4	35.4	37.9	37.9	37.9
85°	10.1	17.7	15.1	30.3	20.2	20.2	25.3	30.3	25.3	25.3	30.3
87.5°	10.1	10.1	7.6	10.1	10.1	10.1	12.6	15.1	15.1	17.7	15.1
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: P249193

CATALOG NUMBER: LSR8B90D010 EC8B90827 8LBDW0WMH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4707.4	4707.4	4707.4	4707.4
2.5°	4715.0	4720.0	4712.5	4710.0
5°	4722.6	4722.6	4717.6	4717.6
7.5°	4722.6	4722.6	4715.0	4710.0
10°	4702.4	4702.4	4694.8	4689.7
12.5°	4664.5	4664.5	4661.9	4654.4
15°	4616.5	4616.5	4606.3	4598.8
17.5°	4550.8	4555.8	4543.2	4543.2
20°	4480.0	4477.5	4467.4	4462.3
22.5°	4406.8	4401.7	4399.2	4384.0
25°	4328.4	4323.4	4315.8	4308.2
27.5°	4194.5	4192.0	4184.4	4174.3
30°	3989.8	3987.3	3977.2	3977.2
32.5°	3724.5	3722.0	3711.9	3714.4
35°	3449.1	3459.2	3454.1	3444.1
37.5°	3219.1	3226.7	3231.8	3226.7
40°	3027.1	3049.8	3052.4	3057.5
42.5°	2822.4	2852.7	2862.9	2867.9
45°	2577.3	2605.1	2627.9	2622.8
47.5°	2327.2	2347.4	2367.6	2352.4
50°	2087.1	2099.8	2107.4	2107.4
52.5°	1859.7	1859.7	1857.2	1859.7
55°	1599.5	1599.5	1589.4	1594.4
57.5°	1326.6	1331.6	1324.0	1311.4
60°	1073.9	1061.3	1056.2	1048.6
62.5°	836.4	836.4	818.7	841.4
65°	626.7	619.1	611.5	608.9
67.5°	454.8	452.3	444.7	442.2
70°	320.9	310.8	308.3	303.2
72.5°	214.8	214.8	209.7	209.7
75°	131.4	118.8	116.2	118.8
77.5°	90.9	88.4	88.4	85.9
80°	60.7	58.1	63.2	55.6
82.5°	37.9	40.4	37.9	40.4
85°	25.3	30.3	27.8	27.8
87.5°	15.1	15.1	15.1	15.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)