

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: P249382

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249382
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 EC8B90950 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 5000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8617.0 lumens
Efficiency: N/A
Efficacy: 100.1 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

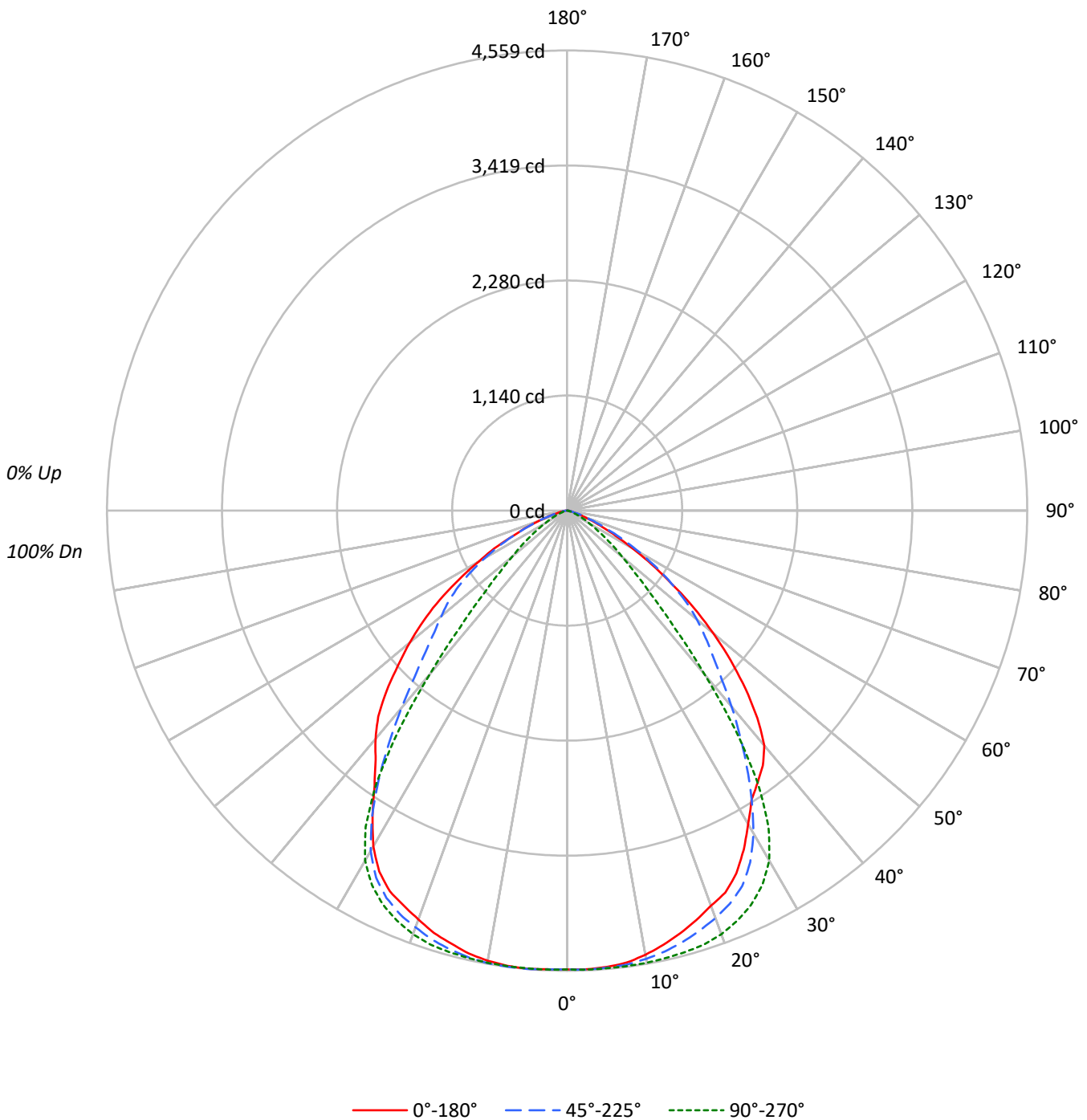
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	140197	140197	140197
5°	140507	140885	141036
10°	139915	142435	141825
15°	138365	144520	141794
20°	136702	146550	141427
25°	134929	146719	141571
30°	127650	142594	136772
35°	123838	123928	125216
40°	122304	85270	118866
45°	108979	51188	110471
50°	90616	34070	97639
55°	67960	23488	82787
60°	46057	15653	62462
65°	27778	10149	42911
70°	15399	5500	26399
75°	6982	2323	13666
80°	6073	2593	9536
85°	6899	3432	9517



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.9	5.0
10°-20°	1260.1	14.6
20°-30°	1912.6	22.2
30°-40°	2008.8	23.3
40°-50°	1506.1	17.5
50°-60°	966.3	11.2
60°-70°	413.4	4.8
70°-80°	97.7	1.1
80°-90°	18.2	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°	3606.6	41.9
0°-40°	5615.4	65.2
0°-60°	8087.8	93.9
0°-90°	8617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8617.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4546	4546	4546	4546	4546	
5°	4539	4546	4551	4559	4556	431
15°	4334	4424	4527	4498	4442	1222
25°	3966	4105	4312	4234	4161	1812
35°	3290	3107	3292	3253	3326	2065
45°	2499	2043	1174	1984	2533	1914
55°	1264	1264	437	1318	1540	1147
65°	381	449	139	578	588	406
75°	59	68	20	117	115	85
85°	20	12	10	20	27	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°	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5
2.5°	4548.9	4553.8	4551.4	4551.4	4548.9	4551.4	4551.4	4556.3	4556.3	4551.4	4548.9
5°	4539.2	4544.1	4544.1	4539.2	4539.2	4551.4	4544.1	4548.9	4548.9	4546.5	4546.5
7.5°	4517.2	4517.2	4527.0	4519.7	4519.7	4527.0	4524.5	4529.4	4534.3	4536.8	4536.8
10°	4468.4	4473.3	4475.7	4475.7	4478.2	4485.5	4490.4	4500.2	4505.0	4509.9	4512.3
12.5°	4407.4	4414.7	4417.2	4414.7	4422.1	4431.8	4444.0	4456.2	4463.6	4473.3	4480.6
15°	4334.2	4334.2	4339.1	4346.4	4351.3	4365.9	4378.1	4392.7	4412.3	4424.5	4436.7
17.5°	4253.7	4258.6	4265.8	4265.8	4275.6	4300.0	4307.3	4329.3	4351.3	4363.5	4387.9
20°	4165.8	4170.7	4178.0	4182.9	4195.1	4214.6	4229.2	4248.8	4273.2	4295.2	4319.5
22.5°	4097.5	4087.7	4092.6	4097.5	4109.7	4126.8	4143.9	4168.2	4192.6	4214.6	4239.0
25°	3965.7	3968.1	3975.5	3980.3	3995.0	4009.6	4029.1	4058.4	4080.4	4104.8	4131.6
27.5°	3787.5	3790.0	3802.2	3802.2	3814.4	3838.8	3851.0	3875.4	3904.7	3929.1	3960.8
30°	3585.0	3589.8	3589.8	3599.6	3606.9	3619.2	3631.3	3655.8	3670.4	3692.4	3736.3
32.5°	3399.5	3404.4	3401.9	3399.5	3392.2	3389.7	3387.3	3392.2	3397.1	3404.4	3421.4
35°	3289.7	3277.5	3267.7	3250.7	3231.1	3206.7	3184.7	3155.5	3128.6	3106.6	3082.3
37.5°	3184.7	3182.3	3167.7	3143.2	3104.2	3060.3	3009.1	2945.6	2882.1	2813.8	2747.9
40°	3038.3	3031.0	3018.8	2984.6	2940.7	2887.0	2818.7	2740.6	2638.1	2533.2	2425.8
42.5°	2789.4	2791.8	2777.2	2750.3	2708.9	2657.6	2586.8	2501.4	2391.6	2267.1	2128.1
45°	2499.0	2499.0	2494.1	2472.1	2442.9	2401.4	2347.7	2276.9	2169.6	2042.6	1893.7
47.5°	2196.4	2198.8	2191.5	2186.6	2174.4	2147.6	2108.5	2054.8	1979.2	1857.1	1708.3
50°	1888.9	1888.9	1901.1	1898.6	1898.6	1888.9	1871.8	1840.1	1774.2	1676.6	1537.5
52.5°	1581.4	1586.3	1593.6	1603.4	1615.5	1635.1	1615.5	1600.9	1559.4	1483.8	1364.2
55°	1264.1	1269.0	1281.2	1298.3	1313.0	1332.5	1337.3	1337.3	1315.4	1264.1	1173.8
57.5°	993.3	985.9	995.7	1010.3	1029.9	1049.4	1064.0	1081.1	1078.7	1044.5	971.3
60°	746.8	749.2	756.5	771.2	785.8	802.9	822.4	837.1	844.4	827.3	780.9
62.5°	544.2	544.2	554.0	568.6	575.9	600.4	612.5	619.9	627.2	624.7	595.5
65°	380.7	385.6	390.5	397.8	405.1	419.7	427.1	441.7	446.6	449.0	427.1
67.5°	268.5	261.1	266.0	270.9	278.2	288.0	302.6	302.6	309.9	309.9	295.3
70°	170.8	170.8	173.3	180.6	185.5	187.9	192.8	197.7	205.0	202.5	202.5
72.5°	114.7	112.3	114.7	117.2	119.6	126.9	126.9	129.3	134.2	136.7	126.9
75°	58.6	61.0	65.9	63.5	70.8	65.9	68.3	75.7	73.2	68.3	68.3
77.5°	48.8	48.8	48.8	46.4	51.2	51.2	48.8	53.7	51.2	51.2	48.8
80°	34.2	36.6	34.2	31.7	34.2	31.7	31.7	31.7	31.7	31.7	29.3
82.5°	26.9	22.0	24.4	22.0	24.4	24.4	22.0	19.5	19.5	22.0	19.5
85°	19.5	14.6	17.1	17.1	14.6	14.6	14.6	14.6	14.6	12.2	12.2
87.5°	12.2	7.3	7.3	7.3	9.7	9.7	9.7	7.3	9.7	9.7	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°	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5
2.5°	4553.8	4551.4	4556.3	4553.8	4553.8	4551.4	4553.8	4551.4	4556.3	4546.5	4548.9
5°	4553.8	4548.9	4551.4	4553.8	4556.3	4551.4	4551.4	4551.4	4556.3	4551.4	4553.8
7.5°	4544.1	4541.6	4548.9	4553.8	4551.4	4548.9	4553.8	4551.4	4556.3	4553.8	4558.7
10°	4524.5	4527.0	4531.9	4539.2	4541.6	4544.1	4548.9	4548.9	4556.3	4546.5	4551.4
12.5°	4495.3	4505.0	4517.2	4522.1	4531.9	4531.9	4536.8	4539.2	4544.1	4541.6	4548.9
15°	4458.7	4470.8	4485.5	4497.7	4509.9	4517.2	4524.5	4527.0	4534.3	4527.0	4529.4
17.5°	4414.7	4429.3	4451.3	4465.9	4485.5	4492.8	4502.6	4507.4	4514.8	4509.9	4512.3
20°	4353.7	4370.8	4395.2	4417.2	4429.3	4446.4	4458.7	4465.9	4470.8	4465.9	4468.4
22.5°	4268.3	4292.7	4324.4	4341.5	4365.9	4380.6	4383.0	4400.1	4412.3	4400.1	4405.0
25°	4168.2	4192.6	4217.1	4253.7	4275.6	4292.7	4309.8	4312.2	4324.4	4322.0	4319.5
27.5°	4002.3	4034.0	4075.5	4104.8	4134.1	4160.9	4180.5	4185.3	4197.5	4192.6	4195.1
30°	3775.3	3809.5	3848.6	3894.9	3936.4	3963.2	3987.6	4004.7	4016.9	4009.6	4007.2
32.5°	3453.2	3487.4	3528.9	3575.2	3624.0	3663.0	3692.4	3714.3	3729.0	3724.1	3711.9
35°	3084.7	3094.5	3121.3	3157.9	3199.4	3240.9	3267.7	3292.1	3309.2	3314.1	3314.1
37.5°	2706.4	2674.7	2655.2	2655.2	2679.6	2696.6	2721.1	2735.7	2762.6	2772.3	2779.6
40°	2340.3	2267.1	2198.8	2147.6	2113.4	2111.0	2111.0	2118.3	2142.7	2174.4	2203.7
42.5°	2013.3	1896.2	1791.3	1696.1	1627.8	1588.7	1571.6	1574.1	1593.6	1622.9	1671.7
45°	1752.2	1605.8	1474.0	1359.3	1266.6	1205.5	1176.3	1173.8	1188.5	1222.6	1276.4
47.5°	1549.7	1393.5	1244.6	1112.8	1012.8	946.9	912.7	903.0	912.7	944.4	1007.9
50°	1381.3	1220.2	1066.5	929.8	822.4	754.1	722.4	710.2	722.4	749.2	812.6
52.5°	1225.1	1059.1	915.2	783.4	668.7	610.1	575.9	568.6	575.9	607.6	658.9
55°	1044.5	903.0	761.4	629.6	529.6	471.0	444.1	436.9	444.1	473.5	527.1
57.5°	866.4	744.3	619.9	500.3	414.9	363.6	339.2	329.4	346.5	366.0	429.5
60°	700.4	602.8	497.8	392.9	322.2	275.8	256.2	253.8	258.7	283.1	327.0
62.5°	549.1	468.6	385.6	300.2	241.6	222.1	197.7	195.3	200.1	214.7	248.9
65°	395.4	344.1	280.7	219.6	173.3	146.4	136.7	139.1	144.0	153.8	185.5
67.5°	275.8	239.2	195.3	153.8	119.6	107.4	97.6	95.2	97.6	114.7	131.8
70°	185.5	163.5	131.8	117.2	83.0	65.9	68.3	61.0	70.8	70.8	85.4
72.5°	122.0	107.4	87.8	68.3	58.6	46.4	46.4	43.9	48.8	51.2	63.5
75°	63.5	48.8	48.8	34.2	24.4	12.2	22.0	19.5	17.1	19.5	24.4
77.5°	43.9	36.6	34.2	26.9	24.4	19.5	19.5	19.5	19.5	22.0	24.4
80°	26.9	26.9	19.5	17.1	14.6	12.2	14.6	14.6	14.6	14.6	17.1
82.5°	17.1	14.6	14.6	12.2	12.2	9.7	9.7	9.7	9.7	9.7	14.6
85°	14.6	9.7	9.7	7.3	9.7	17.1	7.3	9.7	9.7	9.7	7.3
87.5°	4.9	7.3	7.3	7.3	4.9	2.4	4.9	7.3	7.3	12.2	9.7
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°	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5	4546.5
2.5°	4553.8	4556.3	4556.3	4553.8	4553.8	4548.9	4558.7	4551.4	4553.8	4563.6	4556.3
5°	4558.7	4561.1	4561.1	4558.7	4558.7	4558.7	4561.1	4561.1	4558.7	4556.3	4561.1
7.5°	4568.5	4566.0	4566.0	4561.1	4561.1	4556.3	4561.1	4553.8	4558.7	4553.8	4561.1
10°	4556.3	4558.7	4556.3	4553.8	4553.8	4551.4	4551.4	4544.1	4546.5	4539.2	4544.1
12.5°	4548.9	4546.5	4546.5	4541.6	4536.8	4531.9	4529.4	4522.1	4522.1	4505.0	4512.3
15°	4529.4	4531.9	4524.5	4514.8	4509.9	4497.7	4492.8	4483.0	4473.3	4461.1	4463.6
17.5°	4512.3	4505.0	4495.3	4485.5	4465.9	4456.2	4446.4	4431.8	4426.9	4412.3	4407.4
20°	4461.1	4456.2	4444.0	4426.9	4414.7	4392.7	4383.0	4368.4	4356.1	4341.5	4334.2
22.5°	4395.2	4390.3	4375.7	4358.6	4339.1	4329.3	4319.5	4292.7	4280.5	4265.8	4263.4
25°	4312.2	4304.9	4290.3	4270.7	4261.0	4234.1	4224.3	4204.8	4200.0	4185.3	4182.9
27.5°	4185.3	4175.6	4158.5	4134.1	4117.0	4099.9	4090.2	4075.5	4070.6	4056.0	4053.6
30°	3995.0	3982.7	3948.6	3938.9	3909.5	3892.5	3892.5	3872.9	3875.4	3865.6	3865.6
32.5°	3694.8	3675.3	3648.4	3628.9	3609.4	3599.6	3599.6	3592.3	3597.2	3597.2	3602.1
35°	3297.0	3270.2	3255.5	3243.3	3243.3	3253.1	3282.4	3289.7	3304.3	3316.5	3326.3
37.5°	2786.9	2784.5	2801.6	2816.3	2852.9	2894.4	2945.6	2989.5	3031.0	3060.3	3089.6
40°	2235.4	2296.4	2345.2	2413.6	2469.7	2550.2	2643.0	2718.6	2789.4	2840.7	2894.4
42.5°	1744.9	1823.0	1925.5	2025.5	2125.6	2235.4	2357.5	2462.4	2555.1	2625.9	2682.0
45°	1359.3	1466.7	1591.2	1718.1	1847.4	1984.1	2111.0	2218.3	2316.0	2389.2	2445.3
47.5°	1095.7	1212.9	1354.4	1493.5	1640.0	1783.9	1925.5	2018.2	2098.7	2157.3	2208.6
50°	905.4	1029.9	1178.7	1337.3	1483.8	1627.8	1749.8	1840.1	1906.0	1957.2	1988.9
52.5°	756.5	888.3	1046.9	1205.5	1352.0	1483.8	1593.6	1661.9	1715.6	1752.2	1781.5
55°	624.7	751.7	900.5	1049.4	1193.4	1317.8	1408.1	1459.4	1500.8	1522.8	1539.9
57.5°	510.1	627.2	763.9	900.5	1025.0	1127.5	1198.3	1249.5	1269.0	1286.1	1283.7
60°	400.3	510.1	634.5	751.7	859.0	942.0	993.3	1022.5	1037.2	1044.5	1039.6
62.5°	314.8	414.9	510.1	612.5	690.6	761.4	810.2	810.2	817.5	820.0	827.3
65°	234.3	309.9	392.9	468.6	532.0	578.4	605.3	612.5	622.3	619.9	615.0
67.5°	173.3	229.4	290.4	346.5	390.5	419.7	439.3	456.4	453.9	449.0	446.6
70°	119.6	156.2	209.9	244.0	275.8	305.1	309.9	312.4	314.8	317.3	312.4
72.5°	83.0	109.8	139.1	168.4	187.9	200.1	212.3	214.7	214.7	214.7	212.3
75°	41.5	56.1	83.0	95.2	112.3	117.2	126.9	126.9	134.2	124.4	122.0
77.5°	36.6	43.9	58.6	68.3	75.7	83.0	85.4	92.7	90.3	85.4	87.8
80°	22.0	26.9	36.6	41.5	51.2	53.7	56.1	58.6	56.1	58.6	58.6
82.5°	17.1	19.5	24.4	24.4	31.7	31.7	34.2	34.2	36.6	36.6	36.6
85°	9.7	17.1	14.6	29.3	19.5	19.5	24.4	29.3	24.4	24.4	29.3
87.5°	9.7	9.7	7.3	9.7	9.7	9.7	12.2	14.6	14.6	17.1	14.6
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: P249382

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4546.5	4546.5	4546.5	4546.5
2.5°	4553.8	4558.7	4551.4	4548.9
5°	4561.1	4561.1	4556.3	4556.3
7.5°	4561.1	4561.1	4553.8	4548.9
10°	4541.6	4541.6	4534.3	4529.4
12.5°	4505.0	4505.0	4502.6	4495.3
15°	4458.7	4458.7	4448.9	4441.6
17.5°	4395.2	4400.1	4387.9	4387.9
20°	4326.9	4324.4	4314.7	4309.8
22.5°	4256.1	4251.2	4248.8	4234.1
25°	4180.5	4175.6	4168.2	4160.9
27.5°	4051.1	4048.7	4041.3	4031.6
30°	3853.4	3851.0	3841.2	3841.2
32.5°	3597.2	3594.7	3585.0	3587.4
35°	3331.2	3340.9	3336.1	3326.3
37.5°	3109.1	3116.4	3121.3	3116.4
40°	2923.6	2945.6	2948.0	2952.9
42.5°	2726.0	2755.2	2765.0	2769.9
45°	2489.2	2516.1	2538.0	2533.2
47.5°	2247.6	2267.1	2286.7	2272.0
50°	2015.8	2028.0	2035.3	2035.3
52.5°	1796.2	1796.2	1793.7	1796.2
55°	1544.8	1544.8	1535.0	1539.9
57.5°	1281.2	1286.1	1278.8	1266.6
60°	1037.2	1025.0	1020.1	1012.8
62.5°	807.8	807.8	790.7	812.6
65°	605.3	597.9	590.6	588.1
67.5°	439.3	436.9	429.5	427.1
70°	309.9	300.2	297.7	292.8
72.5°	207.4	207.4	202.5	202.5
75°	126.9	114.7	112.3	114.7
77.5°	87.8	85.4	85.4	83.0
80°	58.6	56.1	61.0	53.7
82.5°	36.6	39.1	36.6	39.1
85°	24.4	29.3	26.9	26.9
87.5°	14.6	14.6	14.6	14.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)