

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: P246080

Luminaire Tested: **LSR8B20D010 EC8B20940 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246080
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: LSR8B20D010 EC8B20940 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1937.0 lumens
Efficiency: N/A
Efficacy: 90.9 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

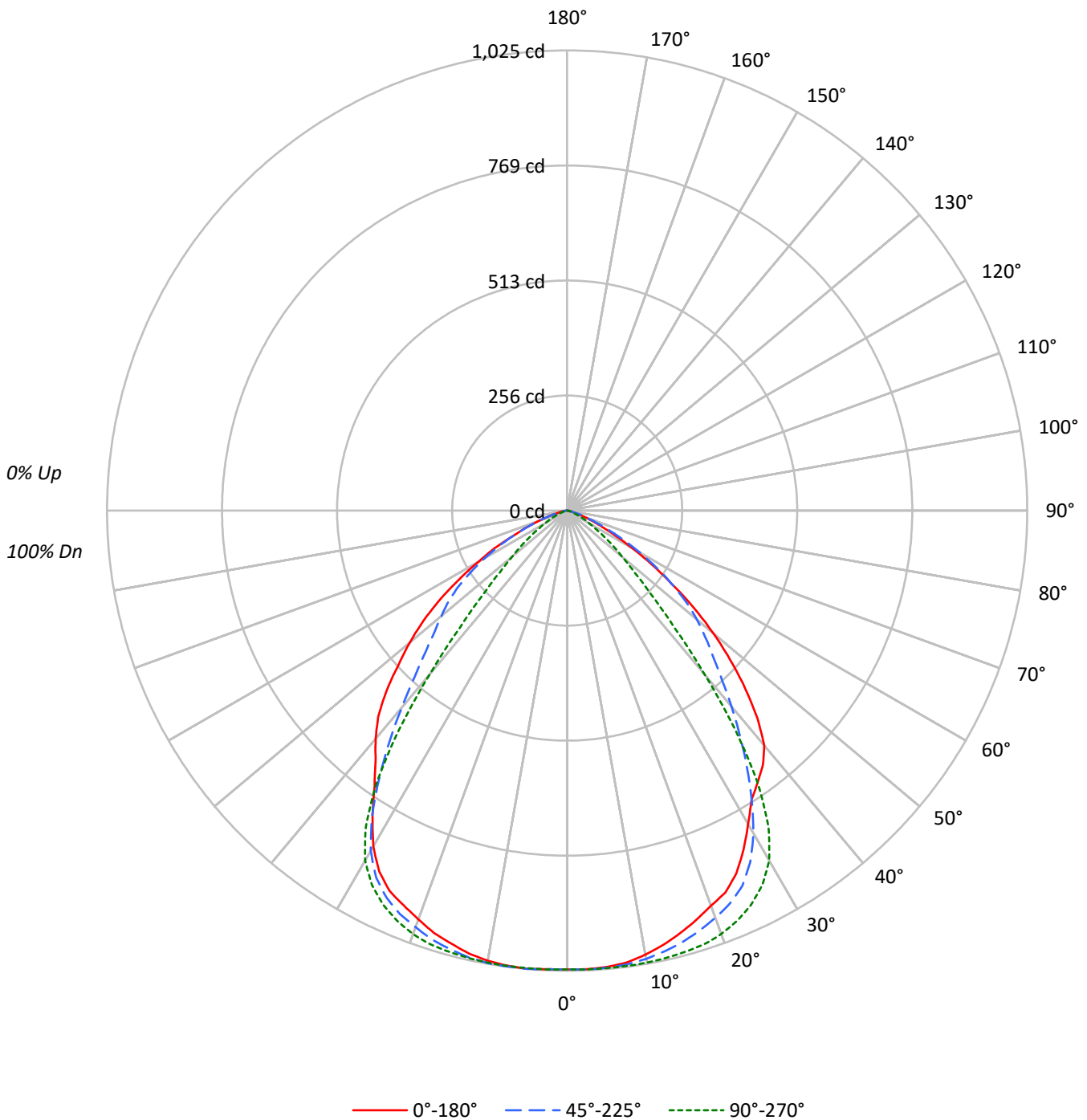
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	31515	31515	31515
5°	31582	31669	31703
10°	31450	32017	31882
15°	31104	32486	31873
20°	30728	32943	31791
25°	30329	32980	31823
30°	28695	32053	30746
35°	27838	27857	28147
40°	27493	19169	26721
45°	24495	11508	24831
50°	20369	7656	21948
55°	15279	5279	18607
60°	10355	3515	14043
65°	6246	2284	9646
70°	3462	1235	5932
75°	1573	524	3074
80°	1367	586	2149
85°	1557	778	2123



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	5.0
10°-20°	283.3	14.6
20°-30°	429.9	22.2
30°-40°	451.6	23.3
40°-50°	338.5	17.5
50°-60°	217.2	11.2
60°-70°	92.9	4.8
70°-80°	22.0	1.1
80°-90°	4.1	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°	810.7	41.9
0°-40°	1262.3	65.2
0°-60°	1818.0	93.9
0°-90°	1937.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1022	1022	1022	1022	1022	
5°	1020	1022	1023	1025	1024	97
15°	974	995	1018	1011	998	275
25°	891	923	969	952	935	407
35°	740	698	740	731	748	464
45°	562	459	264	446	569	430
55°	284	284	98	296	346	258
65°	86	101	31	130	132	91
75°	13	15	4	26	26	19
85°	4	3	2	4	6	5
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°	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0
2.5°	1022.5	1023.7	1023.1	1023.1	1022.5	1023.1	1023.1	1024.2	1024.2	1023.1	1022.5
5°	1020.3	1021.4	1021.4	1020.3	1020.3	1023.1	1021.4	1022.5	1022.5	1022.0	1022.0
7.5°	1015.4	1015.4	1017.6	1016.0	1016.0	1017.6	1017.1	1018.2	1019.3	1019.8	1019.8
10°	1004.4	1005.5	1006.1	1006.1	1006.6	1008.3	1009.4	1011.6	1012.7	1013.8	1014.3
12.5°	990.7	992.4	992.9	992.4	994.0	996.2	999.0	1001.7	1003.4	1005.5	1007.2
15°	974.3	974.3	975.4	977.0	978.1	981.4	984.1	987.4	991.8	994.6	997.3
17.5°	956.2	957.3	958.9	958.9	961.1	966.6	968.2	973.2	978.1	980.9	986.3
20°	936.4	937.5	939.2	940.3	943.0	947.4	950.7	955.1	960.6	965.5	971.0
22.5°	921.1	918.9	920.0	921.1	923.8	927.7	931.5	937.0	942.5	947.4	952.9
25°	891.4	892.0	893.6	894.7	898.0	901.3	905.7	912.3	917.2	922.7	928.7
27.5°	851.4	851.9	854.7	854.7	857.4	862.9	865.7	871.1	877.7	883.2	890.3
30°	805.9	807.0	807.0	809.2	810.8	813.5	816.3	821.8	825.1	830.0	839.9
32.5°	764.2	765.3	764.7	764.2	762.5	762.0	761.4	762.5	763.6	765.3	769.1
35°	739.5	736.7	734.5	730.7	726.3	720.8	715.9	709.3	703.3	698.3	692.9
37.5°	715.9	715.3	712.1	706.6	697.8	687.9	676.4	662.1	647.9	632.5	617.7
40°	683.0	681.3	678.6	670.9	661.0	649.0	633.6	616.1	593.0	569.4	545.3
42.5°	627.0	627.6	624.3	618.2	608.9	597.4	581.5	562.3	537.6	509.6	478.4
45°	561.7	561.7	560.6	555.7	549.1	539.8	527.7	511.8	487.7	459.2	425.7
47.5°	493.7	494.3	492.6	491.5	488.8	482.8	474.0	461.9	444.9	417.5	384.0
50°	424.6	424.6	427.3	426.8	426.8	424.6	420.8	413.6	398.8	376.9	345.6
52.5°	355.5	356.6	358.2	360.4	363.2	367.5	363.2	359.9	350.5	333.5	306.7
55°	284.2	285.3	288.0	291.8	295.1	299.5	300.6	300.6	295.7	284.2	263.9
57.5°	223.3	221.6	223.8	227.1	231.5	235.9	239.2	243.0	242.5	234.8	218.3
60°	167.9	168.4	170.1	173.4	176.6	180.5	184.9	188.2	189.8	186.0	175.5
62.5°	122.3	122.3	124.5	127.8	129.5	135.0	137.7	139.3	141.0	140.4	133.9
65°	85.6	86.7	87.8	89.4	91.1	94.3	96.0	99.3	100.4	100.9	96.0
67.5°	60.3	58.7	59.8	60.9	62.5	64.7	68.0	68.0	69.7	69.7	66.4
70°	38.4	38.4	39.0	40.6	41.7	42.2	43.3	44.4	46.1	45.5	45.5
72.5°	25.8	25.2	25.8	26.3	26.9	28.5	28.5	29.1	30.2	30.7	28.5
75°	13.2	13.7	14.8	14.3	15.9	14.8	15.4	17.0	16.5	15.4	15.4
77.5°	11.0	11.0	11.0	10.4	11.5	11.5	11.0	12.1	11.5	11.5	11.0
80°	7.7	8.2	7.7	7.1	7.7	7.1	7.1	7.1	7.1	7.1	6.6
82.5°	6.0	4.9	5.5	4.9	5.5	5.5	4.9	4.4	4.4	4.9	4.4
85°	4.4	3.3	3.8	3.8	3.3	3.3	3.3	3.3	3.3	2.7	2.7
87.5°	2.7	1.7	1.7	1.7	2.2	2.2	2.2	1.7	2.2	2.2	1.1
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°	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0
2.5°	1023.7	1023.1	1024.2	1023.7	1023.7	1023.1	1023.7	1023.1	1024.2	1022.0	1022.5
5°	1023.7	1022.5	1023.1	1023.7	1024.2	1023.1	1023.1	1023.1	1024.2	1023.1	1023.7
7.5°	1021.4	1020.9	1022.5	1023.7	1023.1	1022.5	1023.7	1023.1	1024.2	1023.7	1024.7
10°	1017.1	1017.6	1018.7	1020.3	1020.9	1021.4	1022.5	1022.5	1024.2	1022.0	1023.1
12.5°	1010.5	1012.7	1015.4	1016.5	1018.7	1018.7	1019.8	1020.3	1021.4	1020.9	1022.5
15°	1002.3	1005.0	1008.3	1011.0	1013.8	1015.4	1017.1	1017.6	1019.3	1017.6	1018.2
17.5°	992.4	995.7	1000.6	1003.9	1008.3	1009.9	1012.1	1013.2	1014.9	1013.8	1014.3
20°	978.7	982.5	988.0	992.9	995.7	999.5	1002.3	1003.9	1005.0	1003.9	1004.4
22.5°	959.5	965.0	972.1	975.9	981.4	984.7	985.2	989.1	991.8	989.1	990.2
25°	937.0	942.5	947.9	956.2	961.1	965.0	968.8	969.3	972.1	971.5	971.0
27.5°	899.7	906.8	916.1	922.7	929.3	935.3	939.7	940.8	943.6	942.5	943.0
30°	848.6	856.3	865.1	875.5	884.9	890.9	896.4	900.2	903.0	901.3	900.8
32.5°	776.2	783.9	793.2	803.7	814.6	823.4	830.0	834.9	838.2	837.1	834.4
35°	693.4	695.6	701.6	709.9	719.2	728.5	734.5	740.0	743.9	745.0	745.0
37.5°	608.4	601.2	596.9	596.9	602.3	606.2	611.7	615.0	621.0	623.2	624.8
40°	526.1	509.6	494.3	482.8	475.1	474.5	474.5	476.2	481.7	488.8	495.4
42.5°	452.6	426.2	402.7	381.3	365.9	357.1	353.3	353.8	358.2	364.8	375.8
45°	393.9	361.0	331.3	305.6	284.7	271.0	264.4	263.9	267.2	274.8	286.9
47.5°	348.3	313.2	279.8	250.1	227.7	212.8	205.2	203.0	205.2	212.3	226.6
50°	310.5	274.3	239.7	209.0	184.9	169.5	162.4	159.6	162.4	168.4	182.7
52.5°	275.4	238.1	205.7	176.1	150.3	137.1	129.5	127.8	129.5	136.6	148.1
55°	234.8	203.0	171.2	141.5	119.0	105.9	99.8	98.2	99.8	106.4	118.5
57.5°	194.8	167.3	139.3	112.5	93.3	81.7	76.3	74.1	77.9	82.3	96.6
60°	157.4	135.5	111.9	88.3	72.4	62.0	57.6	57.0	58.1	63.6	73.5
62.5°	123.4	105.3	86.7	67.5	54.3	49.9	44.4	43.9	45.0	48.3	56.0
65°	88.9	77.4	63.1	49.4	39.0	32.9	30.7	31.3	32.4	34.6	41.7
67.5°	62.0	53.8	43.9	34.6	26.9	24.1	21.9	21.4	21.9	25.8	29.6
70°	41.7	36.8	29.6	26.3	18.7	14.8	15.4	13.7	15.9	15.9	19.2
72.5°	27.4	24.1	19.7	15.4	13.2	10.4	10.4	9.9	11.0	11.5	14.3
75°	14.3	11.0	11.0	7.7	5.5	2.7	4.9	4.4	3.8	4.4	5.5
77.5°	9.9	8.2	7.7	6.0	5.5	4.4	4.4	4.4	4.4	4.9	5.5
80°	6.0	6.0	4.4	3.8	3.3	2.7	3.3	3.3	3.3	3.3	3.8
82.5°	3.8	3.3	3.3	2.7	2.7	2.2	2.2	2.2	2.2	2.2	3.3
85°	3.3	2.2	2.2	1.7	2.2	3.8	1.7	2.2	2.2	2.2	1.7
87.5°	1.1	1.7	1.7	1.7	1.1	0.6	1.1	1.7	1.7	2.7	2.2
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°	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0	1022.0
2.5°	1023.7	1024.2	1024.2	1023.7	1023.7	1022.5	1024.7	1023.1	1023.7	1025.8	1024.2
5°	1024.7	1025.3	1025.3	1024.7	1024.7	1024.7	1025.3	1025.3	1024.7	1024.2	1025.3
7.5°	1026.9	1026.4	1026.4	1025.3	1025.3	1024.2	1025.3	1023.7	1024.7	1023.7	1025.3
10°	1024.2	1024.7	1024.2	1023.7	1023.7	1023.1	1023.1	1021.4	1022.0	1020.3	1021.4
12.5°	1022.5	1022.0	1022.0	1020.9	1019.8	1018.7	1018.2	1016.5	1016.5	1012.7	1014.3
15°	1018.2	1018.7	1017.1	1014.9	1013.8	1011.0	1009.9	1007.7	1005.5	1002.8	1003.4
17.5°	1014.3	1012.7	1010.5	1008.3	1003.9	1001.7	999.5	996.2	995.1	991.8	990.7
20°	1002.8	1001.7	999.0	995.1	992.4	987.4	985.2	982.0	979.2	975.9	974.3
22.5°	988.0	986.9	983.6	979.8	975.4	973.2	971.0	965.0	962.2	958.9	958.4
25°	969.3	967.7	964.4	960.0	957.8	951.8	949.6	945.2	944.1	940.8	940.3
27.5°	940.8	938.6	934.8	929.3	925.4	921.6	919.4	916.1	915.0	911.7	911.2
30°	898.0	895.3	887.6	885.4	878.8	875.0	875.0	870.6	871.1	869.0	869.0
32.5°	830.5	826.2	820.1	815.7	811.3	809.2	809.2	807.5	808.6	808.6	809.7
35°	741.1	735.1	731.8	729.1	729.1	731.2	737.8	739.5	742.8	745.5	747.7
37.5°	626.5	625.9	629.8	633.1	641.3	650.6	662.1	672.0	681.3	687.9	694.5
40°	502.5	516.2	527.2	542.5	555.2	573.3	594.1	611.1	627.0	638.5	650.6
42.5°	392.2	409.8	432.8	455.3	477.8	502.5	529.9	553.5	574.4	590.3	602.9
45°	305.6	329.7	357.7	386.2	415.3	446.0	474.5	498.7	520.6	537.1	549.7
47.5°	246.3	272.6	304.5	335.7	368.6	401.0	432.8	453.7	471.8	484.9	496.5
50°	203.5	231.5	265.0	300.6	333.5	365.9	393.3	413.6	428.4	440.0	447.1
52.5°	170.1	199.7	235.3	271.0	303.9	333.5	358.2	373.6	385.7	393.9	400.5
55°	140.4	169.0	202.4	235.9	268.3	296.2	316.5	328.1	337.4	342.3	346.1
57.5°	114.7	141.0	171.7	202.4	230.4	253.4	269.4	280.9	285.3	289.1	288.6
60°	90.0	114.7	142.6	169.0	193.1	211.7	223.3	229.9	233.1	234.8	233.7
62.5°	70.8	93.3	114.7	137.7	155.2	171.2	182.1	182.1	183.8	184.3	186.0
65°	52.7	69.7	88.3	105.3	119.6	130.0	136.1	137.7	139.9	139.3	138.2
67.5°	39.0	51.6	65.3	77.9	87.8	94.3	98.7	102.6	102.0	100.9	100.4
70°	26.9	35.1	47.2	54.9	62.0	68.6	69.7	70.2	70.8	71.3	70.2
72.5°	18.7	24.7	31.3	37.9	42.2	45.0	47.7	48.3	48.3	48.3	47.7
75°	9.3	12.6	18.7	21.4	25.2	26.3	28.5	28.5	30.2	28.0	27.4
77.5°	8.2	9.9	13.2	15.4	17.0	18.7	19.2	20.8	20.3	19.2	19.7
80°	4.9	6.0	8.2	9.3	11.5	12.1	12.6	13.2	12.6	13.2	13.2
82.5°	3.8	4.4	5.5	5.5	7.1	7.1	7.7	7.7	8.2	8.2	8.2
85°	2.2	3.8	3.3	6.6	4.4	4.4	5.5	6.6	5.5	5.5	6.6
87.5°	2.2	2.2	1.7	2.2	2.2	2.2	2.7	3.3	3.3	3.8	3.3
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: P246080

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1022.0	1022.0	1022.0	1022.0
2.5°	1023.7	1024.7	1023.1	1022.5
5°	1025.3	1025.3	1024.2	1024.2
7.5°	1025.3	1025.3	1023.7	1022.5
10°	1020.9	1020.9	1019.3	1018.2
12.5°	1012.7	1012.7	1012.1	1010.5
15°	1002.3	1002.3	1000.1	998.4
17.5°	988.0	989.1	986.3	986.3
20°	972.6	972.1	969.9	968.8
22.5°	956.7	955.6	955.1	951.8
25°	939.7	938.6	937.0	935.3
27.5°	910.6	910.1	908.4	906.3
30°	866.2	865.7	863.5	863.5
32.5°	808.6	808.1	805.9	806.4
35°	748.8	751.0	749.9	747.7
37.5°	698.9	700.5	701.6	700.5
40°	657.2	662.1	662.7	663.8
42.5°	612.8	619.3	621.5	622.6
45°	559.5	565.6	570.5	569.4
47.5°	505.2	509.6	514.0	510.7
50°	453.1	455.9	457.5	457.5
52.5°	403.8	403.8	403.2	403.8
55°	347.2	347.2	345.1	346.1
57.5°	288.0	289.1	287.4	284.7
60°	233.1	230.4	229.3	227.7
62.5°	181.6	181.6	177.7	182.7
65°	136.1	134.4	132.8	132.2
67.5°	98.7	98.2	96.6	96.0
70°	69.7	67.5	66.9	65.8
72.5°	46.6	46.6	45.5	45.5
75°	28.5	25.8	25.2	25.8
77.5°	19.7	19.2	19.2	18.7
80°	13.2	12.6	13.7	12.1
82.5°	8.2	8.8	8.2	8.8
85°	5.5	6.6	6.0	6.0
87.5°	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)