

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: P246116

Luminaire Tested: **LSR8B20D010 EC8B20835 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246116  
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 EC8B20835 8LBDW0B  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3500 CCT WITH SPECULAR BLACK TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1968.0 lumens  
Efficiency: N/A  
Efficacy: 92.4 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

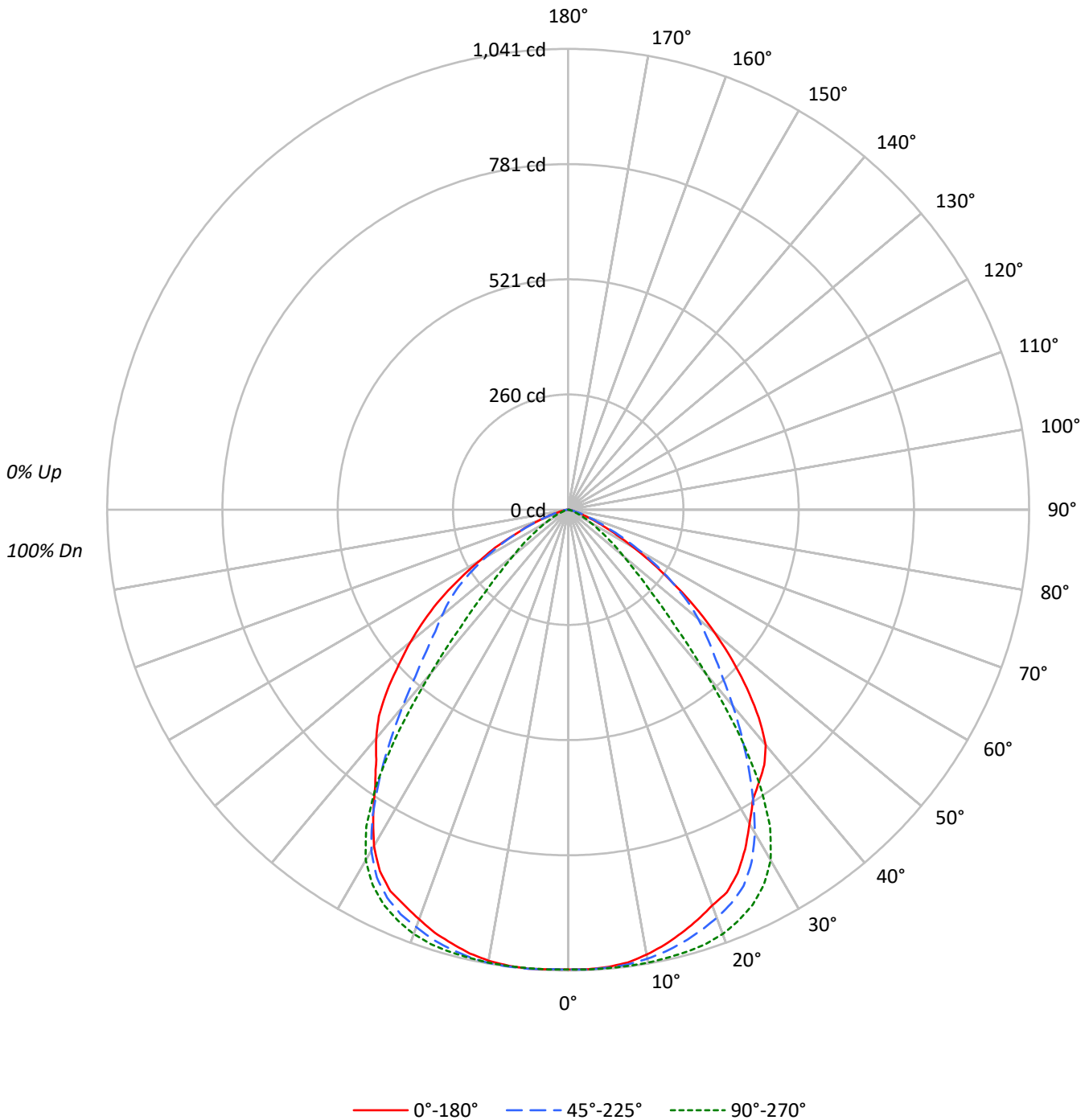
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	32020	32020	32020
5°	32090	32177	32211
10°	31954	32530	32392
15°	31602	33006	32384
20°	31220	33472	32300
25°	30816	33510	32333
30°	29155	32566	31238
35°	28282	28305	28598
40°	27932	19475	27147
45°	24888	11692	25228
50°	20695	7781	22298
55°	15521	5365	18908
60°	10521	3577	14265
65°	6348	2320	9799
70°	3516	1253	6032
75°	1597	536	3122
80°	1385	586	2184
85°	1592	778	2158



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.1	5.0
10°-20°	287.8	14.6
20°-30°	436.8	22.2
30°-40°	458.8	23.3
40°-50°	344.0	17.5
50°-60°	220.7	11.2
60°-70°	94.4	4.8
70°-80°	22.3	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°	823.7	41.9
0°-40°	1282.5	65.2
0°-60°	1847.1	93.9
0°-90°	1968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1968.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1038	1038	1038	1038	1038	
5°	1037	1038	1040	1041	1041	98
15°	990	1010	1034	1027	1014	279
25°	906	938	985	967	950	414
35°	751	710	752	743	760	472
45°	571	466	268	453	578	437
55°	289	289	100	301	352	262
65°	87	103	32	132	134	93
75°	13	16	4	27	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°	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4
2.5°	1038.9	1040.0	1039.5	1039.5	1038.9	1039.5	1039.5	1040.6	1040.6	1039.5	1038.9
5°	1036.7	1037.8	1037.8	1036.7	1036.7	1039.5	1037.8	1038.9	1038.9	1038.4	1038.4
7.5°	1031.7	1031.7	1033.9	1032.2	1032.2	1033.9	1033.3	1034.5	1035.6	1036.1	1036.1
10°	1020.5	1021.6	1022.2	1022.2	1022.8	1024.4	1025.5	1027.8	1028.9	1030.0	1030.6
12.5°	1006.6	1008.3	1008.8	1008.3	1009.9	1012.2	1015.0	1017.7	1019.4	1021.6	1023.3
15°	989.9	989.9	991.0	992.7	993.8	997.1	999.9	1003.2	1007.7	1010.5	1013.3
17.5°	971.5	972.6	974.3	974.3	976.5	982.1	983.7	988.8	993.8	996.6	1002.1
20°	951.4	952.5	954.2	955.3	958.1	962.6	965.9	970.4	975.9	981.0	986.5
22.5°	935.8	933.6	934.7	935.8	938.6	942.5	946.4	952.0	957.5	962.6	968.1
25°	905.7	906.3	907.9	909.0	912.4	915.7	920.2	926.9	931.9	937.5	943.6
27.5°	865.0	865.6	868.4	868.4	871.1	876.7	879.5	885.1	891.8	897.3	904.6
30°	818.8	819.9	819.9	822.1	823.8	826.6	829.3	834.9	838.3	843.3	853.3
32.5°	776.4	777.5	776.9	776.4	774.7	774.2	773.6	774.7	775.8	777.5	781.4
35°	751.3	748.5	746.3	742.4	737.9	732.4	727.3	720.7	714.5	709.5	703.9
37.5°	727.3	726.8	723.4	717.9	709.0	698.9	687.2	672.7	658.2	642.6	627.6
40°	693.9	692.2	689.5	681.6	671.6	659.4	643.8	625.9	602.5	578.5	554.0
42.5°	637.1	637.6	634.3	628.1	618.7	607.0	590.8	571.3	546.2	517.8	486.0
45°	570.7	570.7	569.6	564.6	557.9	548.4	536.2	520.0	495.5	466.5	432.5
47.5°	501.6	502.2	500.5	499.4	496.6	490.5	481.6	469.3	452.0	424.1	390.1
50°	431.4	431.4	434.2	433.6	433.6	431.4	427.5	420.2	405.2	382.9	351.1
52.5°	361.2	362.3	364.0	366.2	369.0	373.4	369.0	365.6	356.1	338.9	311.6
55°	288.7	289.8	292.6	296.5	299.9	304.3	305.4	305.4	300.4	288.7	268.1
57.5°	226.8	225.2	227.4	230.7	235.2	239.7	243.0	246.9	246.4	238.5	221.8
60°	170.6	171.1	172.8	176.1	179.5	183.4	187.8	191.2	192.8	188.9	178.4
62.5°	124.3	124.3	126.5	129.9	131.5	137.1	139.9	141.6	143.2	142.7	136.0
65°	87.0	88.1	89.2	90.9	92.5	95.9	97.5	100.9	102.0	102.6	97.5
67.5°	61.3	59.6	60.8	61.9	63.5	65.8	69.1	69.1	70.8	70.8	67.4
70°	39.0	39.0	39.6	41.2	42.4	42.9	44.0	45.1	46.8	46.3	46.3
72.5°	26.2	25.6	26.2	26.8	27.3	29.0	29.0	29.5	30.7	31.2	29.0
75°	13.4	13.9	15.0	14.5	16.2	15.0	15.6	17.3	16.7	15.6	15.6
77.5°	11.1	11.1	11.1	10.6	11.7	11.7	11.1	12.3	11.7	11.7	11.1
80°	7.8	8.4	7.8	7.2	7.8	7.2	7.2	7.2	7.2	7.2	6.7
82.5°	6.1	5.0	5.6	5.0	5.6	5.6	5.0	4.5	4.5	5.0	4.5
85°	4.5	3.3	3.9	3.9	3.3	3.3	3.3	3.3	3.3	2.8	2.8
87.5°	2.8	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°	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4
2.5°	1040.0	1039.5	1040.6	1040.0	1040.0	1039.5	1040.0	1039.5	1040.6	1038.4	1038.9
5°	1040.0	1038.9	1039.5	1040.0	1040.6	1039.5	1039.5	1039.5	1040.6	1039.5	1040.0
7.5°	1037.8	1037.2	1038.9	1040.0	1039.5	1038.9	1040.0	1039.5	1040.6	1040.0	1041.1
10°	1033.3	1033.9	1035.0	1036.7	1037.2	1037.8	1038.9	1038.9	1040.6	1038.4	1039.5
12.5°	1026.7	1028.9	1031.7	1032.8	1035.0	1035.0	1036.1	1036.7	1037.8	1037.2	1038.9
15°	1018.3	1021.1	1024.4	1027.2	1030.0	1031.7	1033.3	1033.9	1035.6	1033.9	1034.5
17.5°	1008.3	1011.6	1016.6	1020.0	1024.4	1026.1	1028.3	1029.4	1031.1	1030.0	1030.6
20°	994.3	998.2	1003.8	1008.8	1011.6	1015.5	1018.3	1020.0	1021.1	1020.0	1020.5
22.5°	974.8	980.4	987.6	991.5	997.1	1000.5	1001.0	1004.9	1007.7	1004.9	1006.0
25°	952.0	957.5	963.1	971.5	976.5	980.4	984.3	984.9	987.6	987.1	986.5
27.5°	914.1	921.3	930.8	937.5	944.2	950.3	954.8	955.9	958.7	957.5	958.1
30°	862.2	870.0	879.0	889.5	899.0	905.1	910.7	914.6	917.4	915.7	915.2
32.5°	788.7	796.5	805.9	816.5	827.7	836.6	843.3	848.3	851.6	850.5	847.7
35°	704.5	706.7	712.9	721.2	730.7	740.2	746.3	751.9	755.8	756.9	756.9
37.5°	618.1	610.9	606.4	606.4	612.0	615.9	621.5	624.8	630.9	633.2	634.8
40°	534.5	517.8	502.2	490.5	482.7	482.1	482.1	483.8	489.4	496.6	503.3
42.5°	459.8	433.1	409.1	387.4	371.8	362.8	358.9	359.5	364.0	370.6	381.8
45°	400.2	366.7	336.6	310.4	289.3	275.3	268.6	268.1	271.4	279.2	291.5
47.5°	353.9	318.2	284.2	254.2	231.3	216.3	208.5	206.2	208.5	215.7	230.2
50°	315.5	278.7	243.6	212.4	187.8	172.2	165.0	162.2	165.0	171.1	185.6
52.5°	279.8	241.9	209.0	178.9	152.7	139.3	131.5	129.9	131.5	138.8	150.5
55°	238.5	206.2	173.9	143.8	121.0	107.6	101.4	99.8	101.4	108.1	120.4
57.5°	197.9	170.0	141.6	114.3	94.8	83.0	77.5	75.2	79.1	83.6	98.1
60°	160.0	137.7	113.7	89.7	73.6	63.0	58.5	58.0	59.1	64.7	74.7
62.5°	125.4	107.0	88.1	68.6	55.2	50.7	45.1	44.6	45.7	49.0	56.9
65°	90.3	78.6	64.1	50.2	39.6	33.4	31.2	31.8	32.9	35.1	42.4
67.5°	63.0	54.6	44.6	35.1	27.3	24.5	22.3	21.7	22.3	26.2	30.1
70°	42.4	37.3	30.1	26.8	19.0	15.0	15.6	13.9	16.2	16.2	19.5
72.5°	27.9	24.5	20.1	15.6	13.4	10.6	10.6	10.0	11.1	11.7	14.5
75°	14.5	11.1	11.1	7.8	5.6	2.8	5.0	4.5	3.9	4.5	5.6
77.5°	10.0	8.4	7.8	6.1	5.6	4.5	4.5	4.5	4.5	5.0	5.6
80°	6.1	6.1	4.5	3.9	3.3	2.8	3.3	3.3	3.3	3.3	3.9
82.5°	3.9	3.3	3.3	2.8	2.8	2.2	2.2	2.2	2.2	2.2	3.3
85°	3.3	2.2	2.2	1.7	2.2	3.9	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	2.8	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°	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4	1038.4
2.5°	1040.0	1040.6	1040.6	1040.0	1040.0	1038.9	1041.1	1039.5	1040.0	1042.3	1040.6
5°	1041.1	1041.7	1041.7	1041.1	1041.1	1041.1	1041.7	1041.7	1041.1	1040.6	1041.7
7.5°	1043.4	1042.8	1042.8	1041.7	1041.7	1040.6	1041.7	1040.0	1041.1	1040.0	1041.7
10°	1040.6	1041.1	1040.6	1040.0	1040.0	1039.5	1039.5	1037.8	1038.4	1036.7	1037.8
12.5°	1038.9	1038.4	1038.4	1037.2	1036.1	1035.0	1034.5	1032.8	1032.8	1028.9	1030.6
15°	1034.5	1035.0	1033.3	1031.1	1030.0	1027.2	1026.1	1023.9	1021.6	1018.9	1019.4
17.5°	1030.6	1028.9	1026.7	1024.4	1020.0	1017.7	1015.5	1012.2	1011.0	1007.7	1006.6
20°	1018.9	1017.7	1015.0	1011.0	1008.3	1003.2	1001.0	997.7	994.9	991.5	989.9
22.5°	1003.8	1002.7	999.3	995.4	991.0	988.8	986.5	980.4	977.6	974.3	973.7
25°	984.9	983.2	979.8	975.4	973.1	967.0	964.8	960.3	959.2	955.9	955.3
27.5°	955.9	953.6	949.7	944.2	940.3	936.4	934.1	930.8	929.7	926.3	925.8
30°	912.4	909.6	901.8	899.6	892.9	889.0	889.0	884.5	885.1	882.9	882.9
32.5°	843.8	839.4	833.2	828.8	824.3	822.1	822.1	820.4	821.5	821.5	822.7
35°	753.0	746.9	743.5	740.7	740.7	743.0	749.6	751.3	754.7	757.4	759.7
37.5°	636.5	635.9	639.9	643.2	651.6	661.0	672.7	682.8	692.2	698.9	705.6
40°	510.5	524.5	535.6	551.2	564.0	582.4	603.6	620.9	637.1	648.8	661.0
42.5°	398.5	416.3	439.8	462.6	485.5	510.5	538.4	562.4	583.6	599.7	612.5
45°	310.4	335.0	363.4	392.4	421.9	453.1	482.1	506.6	528.9	545.7	558.5
47.5°	250.3	277.0	309.3	341.1	374.5	407.4	439.8	460.9	479.3	492.7	504.4
50°	206.8	235.2	269.2	305.4	338.9	371.8	399.6	420.2	435.3	447.0	454.2
52.5°	172.8	202.9	239.1	275.3	308.8	338.9	364.0	379.6	391.8	400.2	406.9
55°	142.7	171.7	205.7	239.7	272.5	301.0	321.6	333.3	342.8	347.8	351.7
57.5°	116.5	143.2	174.5	205.7	234.1	257.5	273.7	285.4	289.8	293.7	293.2
60°	91.4	116.5	144.9	171.7	196.2	215.1	226.8	233.5	236.9	238.5	237.4
62.5°	71.9	94.8	116.5	139.9	157.7	173.9	185.0	185.0	186.7	187.3	188.9
65°	53.5	70.8	89.7	107.0	121.5	132.1	138.2	139.9	142.1	141.6	140.5
67.5°	39.6	52.4	66.3	79.1	89.2	95.9	100.3	104.2	103.7	102.6	102.0
70°	27.3	35.7	47.9	55.7	63.0	69.7	70.8	71.3	71.9	72.5	71.3
72.5°	19.0	25.1	31.8	38.5	42.9	45.7	48.5	49.0	49.0	49.0	48.5
75°	9.5	12.8	19.0	21.7	25.6	26.8	29.0	29.0	30.7	28.4	27.9
77.5°	8.4	10.0	13.4	15.6	17.3	19.0	19.5	21.2	20.6	19.5	20.1
80°	5.0	6.1	8.4	9.5	11.7	12.3	12.8	13.4	12.8	13.4	13.4
82.5°	3.9	4.5	5.6	5.6	7.2	7.2	7.8	7.8	8.4	8.4	8.4
85°	2.2	3.9	3.3	6.7	4.5	4.5	5.6	6.7	5.6	5.6	6.7
87.5°	2.2	2.2	1.7	2.2	2.2	2.2	2.8	3.3	3.3	3.9	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: P246116

CATALOG NUMBER: LSR8B20D010 EC8B20835 8LBDW0B

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1038.4	1038.4	1038.4	1038.4
2.5°	1040.0	1041.1	1039.5	1038.9
5°	1041.7	1041.7	1040.6	1040.6
7.5°	1041.7	1041.7	1040.0	1038.9
10°	1037.2	1037.2	1035.6	1034.5
12.5°	1028.9	1028.9	1028.3	1026.7
15°	1018.3	1018.3	1016.1	1014.4
17.5°	1003.8	1004.9	1002.1	1002.1
20°	988.2	987.6	985.4	984.3
22.5°	972.0	970.9	970.4	967.0
25°	954.8	953.6	952.0	950.3
27.5°	925.2	924.7	923.0	920.8
30°	880.1	879.5	877.3	877.3
32.5°	821.5	821.0	818.8	819.3
35°	760.8	763.0	761.9	759.7
37.5°	710.1	711.7	712.9	711.7
40°	667.7	672.7	673.3	674.4
42.5°	622.6	629.3	631.5	632.6
45°	568.5	574.6	579.7	578.5
47.5°	513.3	517.8	522.2	518.9
50°	460.4	463.2	464.8	464.8
52.5°	410.2	410.2	409.7	410.2
55°	352.8	352.8	350.6	351.7
57.5°	292.6	293.7	292.1	289.3
60°	236.9	234.1	233.0	231.3
62.5°	184.5	184.5	180.6	185.6
65°	138.2	136.6	134.9	134.3
67.5°	100.3	99.8	98.1	97.5
70°	70.8	68.6	68.0	66.9
72.5°	47.4	47.4	46.3	46.3
75°	29.0	26.2	25.6	26.2
77.5°	20.1	19.5	19.5	19.0
80°	13.4	12.8	13.9	12.3
82.5°	8.4	8.9	8.4	8.9
85°	5.6	6.7	6.1	6.1
87.5°	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)