

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: P244598

Luminaire Tested: **LSR8B20D010 EC8B20830 8LBDW0H**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P244598  
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 EC8B20830 8LBDW0H  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH SEMI-SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2139.0 lumens  
Efficiency: N/A  
Efficacy: 100.4 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

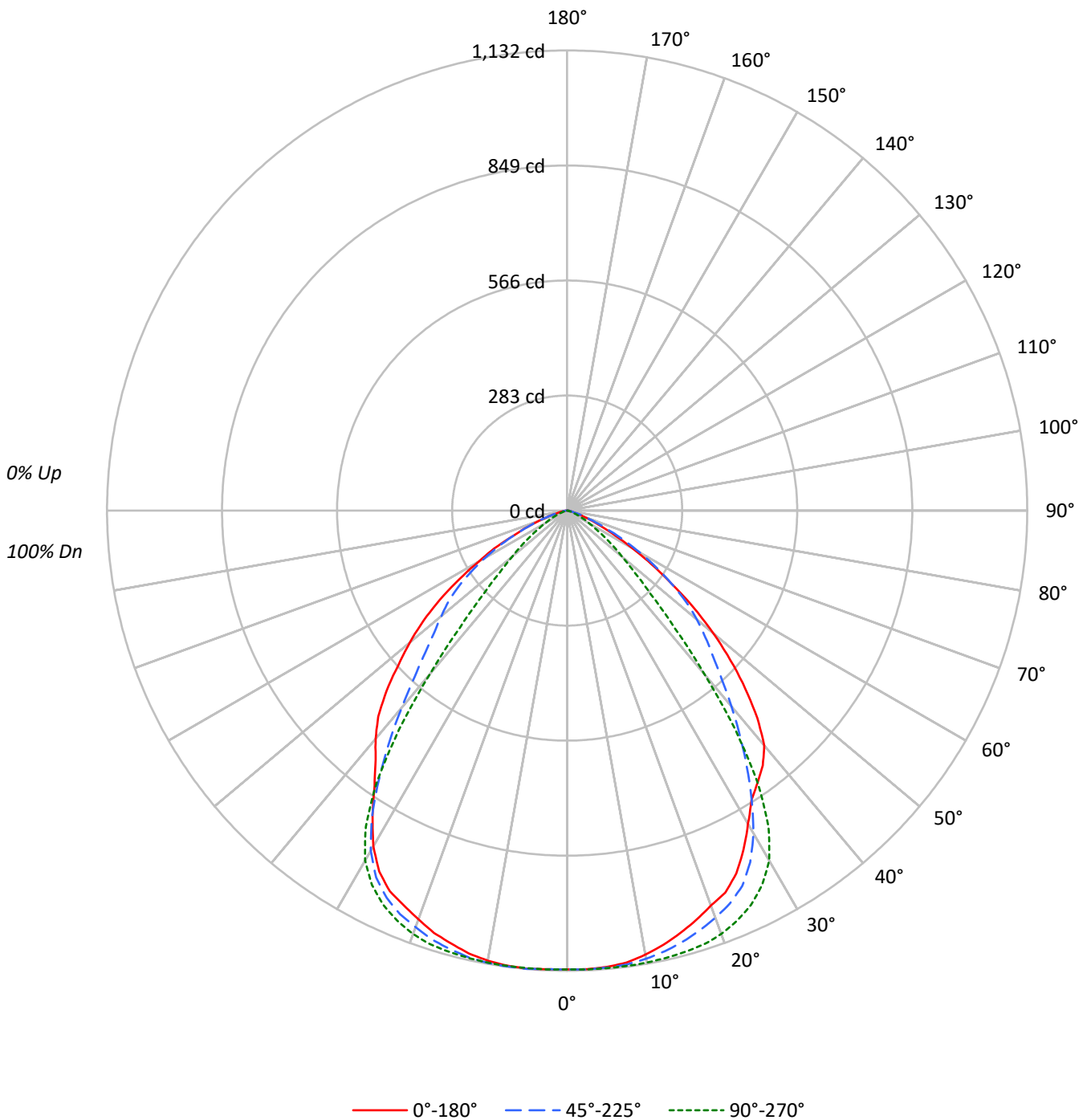
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	52	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°	34802	34802	34802
5°	34879	34972	35009
10°	34731	35358	35204
15°	34347	35873	35196
20°	33934	36379	35106
25°	33493	36419	35144
30°	31686	35397	33951
35°	30740	30763	31083
40°	30360	21166	29506
45°	27051	12708	27421
50°	22494	8458	24236
55°	16870	5828	20548
60°	11434	3885	15504
65°	6895	2517	10653
70°	3823	1361	6555
75°	1728	572	3396
80°	1509	639	2362
85°	1698	849	2371



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.7	5.0
10°-20°	312.8	14.6
20°-30°	474.8	22.2
30°-40°	498.6	23.3
40°-50°	373.9	17.5
50°-60°	239.9	11.2
60°-70°	102.6	4.8
70°-80°	24.2	1.1
80°-90°	4.5	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°	895.3	41.9
0°-40°	1393.9	65.2
0°-60°	2007.6	93.9
0°-90°	2139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2139.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1129	1129	1129	1129	1129	
5°	1127	1129	1130	1132	1131	107
15°	1076	1098	1124	1116	1102	303
25°	984	1019	1070	1051	1033	450
35°	817	771	817	808	826	513
45°	620	507	291	492	629	475
55°	314	314	108	327	382	285
65°	94	112	34	144	146	101
75°	14	17	5	29	28	21
85°	5	3	2	5	7	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°	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6
2.5°	1129.2	1130.4	1129.8	1129.8	1129.2	1129.8	1129.8	1131.0	1131.0	1129.8	1129.2
5°	1126.8	1128.0	1128.0	1126.8	1126.8	1129.8	1128.0	1129.2	1129.2	1128.6	1128.6
7.5°	1121.3	1121.3	1123.7	1121.9	1121.9	1123.7	1123.1	1124.3	1125.6	1126.2	1126.2
10°	1109.2	1110.4	1111.0	1111.0	1111.6	1113.4	1114.6	1117.1	1118.3	1119.5	1120.1
12.5°	1094.1	1095.9	1096.5	1095.9	1097.7	1100.1	1103.1	1106.2	1108.0	1110.4	1112.2
15°	1075.9	1075.9	1077.1	1078.9	1080.1	1083.8	1086.8	1090.4	1095.3	1098.3	1101.3
17.5°	1055.9	1057.1	1058.9	1058.9	1061.3	1067.4	1069.2	1074.7	1080.1	1083.1	1089.2
20°	1034.1	1035.3	1037.1	1038.3	1041.3	1046.2	1049.8	1054.7	1060.7	1066.2	1072.2
22.5°	1017.1	1014.7	1015.9	1017.1	1020.2	1024.4	1028.6	1034.7	1040.7	1046.2	1052.3
25°	984.4	985.0	986.8	988.0	991.7	995.3	1000.2	1007.4	1012.9	1018.9	1025.6
27.5°	940.2	940.8	943.8	943.8	946.8	952.9	955.9	962.0	969.3	975.3	983.2
30°	889.9	891.1	891.1	893.5	895.3	898.4	901.4	907.5	911.1	916.6	927.5
32.5°	843.9	845.1	844.5	843.9	842.0	841.4	840.8	842.0	843.3	845.1	849.3
35°	816.6	813.6	811.2	806.9	802.1	796.0	790.5	783.3	776.6	771.2	765.1
37.5°	790.5	789.9	786.3	780.2	770.6	759.7	746.9	731.2	715.4	698.5	682.1
40°	754.2	752.4	749.4	740.9	730.0	716.6	699.7	680.3	654.8	628.8	602.2
42.5°	692.4	693.0	689.4	682.7	672.4	659.7	642.1	620.9	593.7	562.8	528.2
45°	620.3	620.3	619.1	613.7	606.4	596.1	582.8	565.2	538.5	507.0	470.1
47.5°	545.2	545.8	544.0	542.8	539.8	533.1	523.4	510.1	491.3	461.0	424.0
50°	468.9	468.9	471.9	471.3	471.3	468.9	464.6	456.8	440.4	416.2	381.7
52.5°	392.5	393.8	395.6	398.0	401.0	405.9	401.0	397.4	387.1	368.3	338.6
55°	313.8	315.0	318.0	322.3	325.9	330.8	332.0	332.0	326.5	313.8	291.4
57.5°	246.6	244.7	247.2	250.8	255.6	260.5	264.1	268.4	267.8	259.3	241.1
60°	185.4	186.0	187.8	191.4	195.1	199.3	204.2	207.8	209.6	205.4	193.9
62.5°	135.1	135.1	137.5	141.1	143.0	149.0	152.1	153.9	155.7	155.1	147.8
65°	94.5	95.7	96.9	98.7	100.6	104.2	106.0	109.6	110.9	111.5	106.0
67.5°	66.6	64.8	66.0	67.2	69.1	71.5	75.1	75.1	76.9	76.9	73.3
70°	42.4	42.4	43.0	44.8	46.0	46.6	47.9	49.1	50.9	50.3	50.3
72.5°	28.5	27.9	28.5	29.1	29.7	31.5	31.5	32.1	33.3	33.9	31.5
75°	14.5	15.1	16.3	15.8	17.6	16.3	17.0	18.8	18.2	17.0	17.0
77.5°	12.1	12.1	12.1	11.5	12.7	12.7	12.1	13.3	12.7	12.7	12.1
80°	8.5	9.1	8.5	7.9	8.5	7.9	7.9	7.9	7.9	7.9	7.3
82.5°	6.7	5.5	6.1	5.5	6.1	6.1	5.5	4.8	4.8	5.5	4.8
85°	4.8	3.6	4.2	4.2	3.6	3.6	3.6	3.6	3.6	3.0	3.0
87.5°	3.0	1.8	1.8	1.8	2.4	2.4	2.4	1.8	2.4	2.4	1.2
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6
2.5°	1130.4	1129.8	1131.0	1130.4	1130.4	1129.8	1130.4	1129.8	1131.0	1128.6	1129.2
5°	1130.4	1129.2	1129.8	1130.4	1131.0	1129.8	1129.8	1129.8	1131.0	1129.8	1130.4
7.5°	1128.0	1127.4	1129.2	1130.4	1129.8	1129.2	1130.4	1129.8	1131.0	1130.4	1131.6
10°	1123.1	1123.7	1124.9	1126.8	1127.4	1128.0	1129.2	1129.2	1131.0	1128.6	1129.8
12.5°	1115.9	1118.3	1121.3	1122.5	1124.9	1124.9	1126.2	1126.8	1128.0	1127.4	1129.2
15°	1106.8	1109.8	1113.4	1116.5	1119.5	1121.3	1123.1	1123.7	1125.6	1123.7	1124.3
17.5°	1095.9	1099.5	1105.0	1108.6	1113.4	1115.3	1117.7	1118.9	1120.7	1119.5	1120.1
20°	1080.7	1085.0	1091.0	1096.5	1099.5	1103.7	1106.8	1108.6	1109.8	1108.6	1109.2
22.5°	1059.5	1065.6	1073.5	1077.7	1083.8	1087.4	1088.0	1092.2	1095.3	1092.2	1093.4
25°	1034.7	1040.7	1046.8	1055.9	1061.3	1065.6	1069.8	1070.4	1073.5	1072.8	1072.2
27.5°	993.5	1001.4	1011.7	1018.9	1026.2	1032.9	1037.7	1038.9	1042.0	1040.7	1041.3
30°	937.1	945.6	955.3	966.8	977.1	983.8	989.9	994.1	997.1	995.3	994.7
32.5°	857.2	865.7	876.0	887.5	899.6	909.3	916.6	922.0	925.6	924.4	921.4
35°	765.7	768.1	774.8	783.9	794.2	804.5	811.2	817.2	821.4	822.7	822.7
37.5°	671.8	663.9	659.1	659.1	665.1	669.4	675.5	679.1	685.8	688.2	690.0
40°	580.9	562.8	545.8	533.1	524.6	524.0	524.0	525.8	531.9	539.8	547.0
42.5°	499.8	470.7	444.6	421.0	404.1	394.4	390.1	390.7	395.6	402.8	415.0
45°	435.0	398.6	365.9	337.4	314.4	299.3	292.0	291.4	295.0	303.5	316.8
47.5°	384.7	345.9	308.9	276.2	251.4	235.0	226.6	224.1	226.6	234.4	250.2
50°	342.9	302.9	264.7	230.8	204.2	187.2	179.3	176.3	179.3	186.0	201.7
52.5°	304.1	262.9	227.2	194.5	166.0	151.4	143.0	141.1	143.0	150.8	163.6
55°	259.3	224.1	189.0	156.3	131.5	116.9	110.3	108.4	110.3	117.5	130.9
57.5°	215.1	184.8	153.9	124.2	103.0	90.3	84.2	81.8	86.0	90.9	106.6
60°	173.9	149.6	123.6	97.5	80.0	68.5	63.6	63.0	64.2	70.3	81.2
62.5°	136.3	116.3	95.7	74.5	60.0	55.1	49.1	48.5	49.7	53.3	61.8
65°	98.1	85.4	69.7	54.5	43.0	36.3	33.9	34.5	35.7	38.2	46.0
67.5°	68.5	59.4	48.5	38.2	29.7	26.7	24.2	23.6	24.2	28.5	32.7
70°	46.0	40.6	32.7	29.1	20.6	16.3	17.0	15.1	17.6	17.6	21.2
72.5°	30.3	26.7	21.8	17.0	14.5	11.5	11.5	10.9	12.1	12.7	15.8
75°	15.8	12.1	12.1	8.5	6.1	3.0	5.5	4.8	4.2	4.8	6.1
77.5°	10.9	9.1	8.5	6.7	6.1	4.8	4.8	4.8	4.8	5.5	6.1
80°	6.7	6.7	4.8	4.2	3.6	3.0	3.6	3.6	3.6	3.6	4.2
82.5°	4.2	3.6	3.6	3.0	3.0	2.4	2.4	2.4	2.4	2.4	3.6
85°	3.6	2.4	2.4	1.8	2.4	4.2	1.8	2.4	2.4	2.4	1.8
87.5°	1.2	1.8	1.8	1.8	1.2	0.6	1.2	1.8	1.8	3.0	2.4
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6	1128.6
2.5°	1130.4	1131.0	1131.0	1130.4	1130.4	1129.2	1131.6	1129.8	1130.4	1132.8	1131.0
5°	1131.6	1132.2	1132.2	1131.6	1131.6	1131.6	1132.2	1132.2	1131.6	1131.0	1132.2
7.5°	1134.0	1133.4	1133.4	1132.2	1132.2	1131.0	1132.2	1130.4	1131.6	1130.4	1132.2
10°	1131.0	1131.6	1131.0	1130.4	1130.4	1129.8	1129.8	1128.0	1128.6	1126.8	1128.0
12.5°	1129.2	1128.6	1128.6	1127.4	1126.2	1124.9	1124.3	1122.5	1122.5	1118.3	1120.1
15°	1124.3	1124.9	1123.1	1120.7	1119.5	1116.5	1115.3	1112.8	1110.4	1107.4	1108.0
17.5°	1120.1	1118.3	1115.9	1113.4	1108.6	1106.2	1103.7	1100.1	1098.9	1095.3	1094.1
20°	1107.4	1106.2	1103.1	1098.9	1095.9	1090.4	1088.0	1084.4	1081.3	1077.7	1075.9
22.5°	1091.0	1089.8	1086.2	1081.9	1077.1	1074.7	1072.2	1065.6	1062.5	1058.9	1058.3
25°	1070.4	1068.6	1065.0	1060.1	1057.7	1051.0	1048.6	1043.8	1042.6	1038.9	1038.3
27.5°	1038.9	1036.5	1032.3	1026.2	1022.0	1017.7	1015.3	1011.7	1010.5	1006.8	1006.2
30°	991.7	988.6	980.2	977.7	970.5	966.2	966.2	961.4	962.0	959.6	959.6
32.5°	917.2	912.3	905.6	900.8	896.0	893.5	893.5	891.7	892.9	892.9	894.1
35°	818.4	811.8	808.1	805.1	805.1	807.5	814.8	816.6	820.2	823.3	825.7
37.5°	691.8	691.2	695.4	699.1	708.2	718.5	731.2	742.1	752.4	759.7	766.9
40°	554.9	570.0	582.2	599.1	613.0	633.0	656.1	674.8	692.4	705.1	718.5
42.5°	433.1	452.5	478.0	502.8	527.6	554.9	585.2	611.2	634.3	651.8	665.8
45°	337.4	364.1	395.0	426.5	458.6	492.5	524.0	550.7	574.9	593.1	607.0
47.5°	272.0	301.1	336.2	370.7	407.1	442.8	478.0	501.0	521.0	535.5	548.2
50°	224.7	255.6	292.6	332.0	368.3	404.1	434.3	456.8	473.1	485.8	493.7
52.5°	187.8	220.5	259.9	299.3	335.6	368.3	395.6	412.5	425.9	435.0	442.2
55°	155.1	186.6	223.5	260.5	296.2	327.1	349.5	362.3	372.6	378.0	382.2
57.5°	126.6	155.7	189.6	223.5	254.4	279.9	297.4	310.2	315.0	319.2	318.6
60°	99.4	126.6	157.5	186.6	213.2	233.8	246.6	253.8	257.5	259.3	258.1
62.5°	78.1	103.0	126.6	152.1	171.4	189.0	201.1	201.1	202.9	203.5	205.4
65°	58.1	76.9	97.5	116.3	132.1	143.6	150.2	152.1	154.5	153.9	152.7
67.5°	43.0	56.9	72.1	86.0	96.9	104.2	109.0	113.3	112.7	111.5	110.9
70°	29.7	38.8	52.1	60.6	68.5	75.7	76.9	77.5	78.1	78.8	77.5
72.5°	20.6	27.3	34.5	41.8	46.6	49.7	52.7	53.3	53.3	53.3	52.7
75°	10.3	13.9	20.6	23.6	27.9	29.1	31.5	31.5	33.3	30.9	30.3
77.5°	9.1	10.9	14.5	17.0	18.8	20.6	21.2	23.0	22.4	21.2	21.8
80°	5.5	6.7	9.1	10.3	12.7	13.3	13.9	14.5	13.9	14.5	14.5
82.5°	4.2	4.8	6.1	6.1	7.9	7.9	8.5	8.5	9.1	9.1	9.1
85°	2.4	4.2	3.6	7.3	4.8	4.8	6.1	7.3	6.1	6.1	7.3
87.5°	2.4	2.4	1.8	2.4	2.4	2.4	3.0	3.6	3.6	4.2	3.6
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: P244598

CATALOG NUMBER: LSR8B20D010 EC8B20830 8LBDW0H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1128.6	1128.6	1128.6	1128.6
2.5°	1130.4	1131.6	1129.8	1129.2
5°	1132.2	1132.2	1131.0	1131.0
7.5°	1132.2	1132.2	1130.4	1129.2
10°	1127.4	1127.4	1125.6	1124.3
12.5°	1118.3	1118.3	1117.7	1115.9
15°	1106.8	1106.8	1104.3	1102.5
17.5°	1091.0	1092.2	1089.2	1089.2
20°	1074.1	1073.5	1071.0	1069.8
22.5°	1056.5	1055.3	1054.7	1051.0
25°	1037.7	1036.5	1034.7	1032.9
27.5°	1005.6	1005.0	1003.2	1000.8
30°	956.5	955.9	953.5	953.5
32.5°	892.9	892.3	889.9	890.5
35°	826.9	829.3	828.1	825.7
37.5°	771.8	773.6	774.8	773.6
40°	725.7	731.2	731.8	733.0
42.5°	676.7	683.9	686.4	687.6
45°	617.9	624.6	630.0	628.8
47.5°	557.9	562.8	567.6	564.0
50°	500.4	503.4	505.2	505.2
52.5°	445.9	445.9	445.3	445.9
55°	383.5	383.5	381.0	382.2
57.5°	318.0	319.2	317.4	314.4
60°	257.5	254.4	253.2	251.4
62.5°	200.5	200.5	196.3	201.7
65°	150.2	148.4	146.6	146.0
67.5°	109.0	108.4	106.6	106.0
70°	76.9	74.5	73.9	72.7
72.5°	51.5	51.5	50.3	50.3
75°	31.5	28.5	27.9	28.5
77.5°	21.8	21.2	21.2	20.6
80°	14.5	13.9	15.1	13.3
82.5°	9.1	9.7	9.1	9.7
85°	6.1	7.3	6.7	6.7
87.5°	3.6	3.6	3.6	3.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)