

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: P246038

Luminaire Tested: **LSR8B20D010 EC8B20830 8LBDW0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246038  
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 8LBDW0GPH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2091.0 lumens  
Efficiency: N/A  
Efficacy: 98.2 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

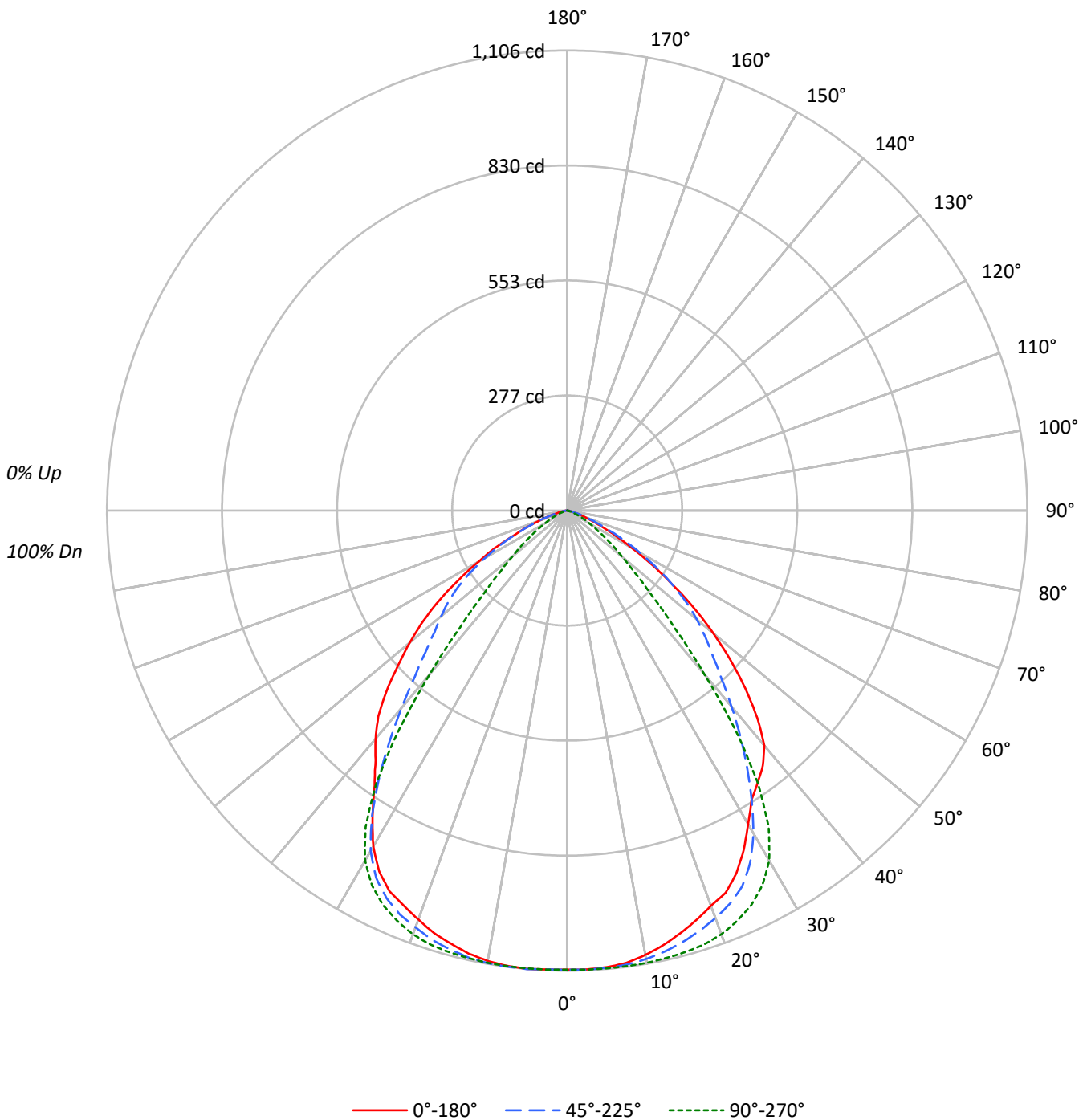
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	34022	34022	34022
5°	34096	34186	34223
10°	33952	34562	34415
15°	33575	35069	34408
20°	33173	35562	34318
25°	32741	35603	34354
30°	30974	34603	33189
35°	30051	30074	30386
40°	29679	20691	28846
45°	26445	12420	26807
50°	21991	8266	23694
55°	16494	5699	20091
60°	11175	3799	15159
65°	6742	2466	10412
70°	3742	1334	6410
75°	1692	560	3312
80°	1474	639	2309
85°	1663	849	2300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.3	5.0
10°-20°	305.8	14.6
20°-30°	464.1	22.2
30°-40°	487.5	23.3
40°-50°	365.5	17.5
50°-60°	234.5	11.2
60°-70°	100.3	4.8
70°-80°	23.7	1.1
80°-90°	4.4	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°	875.2	41.9
0°-40°	1362.6	65.2
0°-60°	1962.6	93.9
0°-90°	2091.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2091.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1103	1103	1103	1103	1103	
5°	1102	1103	1104	1106	1106	105
15°	1052	1074	1098	1091	1078	297
25°	962	996	1046	1028	1010	440
35°	798	754	799	789	807	501
45°	606	496	285	482	615	464
55°	307	307	106	320	374	278
65°	92	109	34	140	143	99
75°	14	17	5	28	28	21
85°	5	3	2	5	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°	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3
2.5°	1103.8	1105.0	1104.4	1104.4	1103.8	1104.4	1104.4	1105.6	1105.6	1104.4	1103.8
5°	1101.5	1102.7	1102.7	1101.5	1101.5	1104.4	1102.7	1103.8	1103.8	1103.3	1103.3
7.5°	1096.2	1096.2	1098.5	1096.7	1096.7	1098.5	1097.9	1099.1	1100.3	1100.9	1100.9
10°	1084.3	1085.5	1086.1	1086.1	1086.7	1088.4	1089.6	1092.0	1093.2	1094.4	1095.0
12.5°	1069.5	1071.3	1071.9	1071.3	1073.1	1075.4	1078.4	1081.3	1083.1	1085.5	1087.3
15°	1051.7	1051.7	1052.9	1054.7	1055.9	1059.4	1062.4	1065.9	1070.7	1073.6	1076.6
17.5°	1032.2	1033.4	1035.1	1035.1	1037.5	1043.4	1045.2	1050.6	1055.9	1058.8	1064.8
20°	1010.9	1012.1	1013.8	1015.0	1018.0	1022.7	1026.3	1031.0	1036.9	1042.3	1048.2
22.5°	994.3	991.9	993.1	994.3	997.3	1001.4	1005.5	1011.5	1017.4	1022.7	1028.6
25°	962.3	962.9	964.7	965.9	969.4	973.0	977.7	984.8	990.1	996.1	1002.6
27.5°	919.1	919.7	922.6	922.6	925.6	931.5	934.5	940.4	947.5	953.4	961.1
30°	869.9	871.1	871.1	873.5	875.3	878.2	881.2	887.1	890.7	896.0	906.7
32.5°	824.9	826.1	825.5	824.9	823.1	822.6	822.0	823.1	824.3	826.1	830.2
35°	798.3	795.3	792.9	788.8	784.1	778.1	772.8	765.7	759.2	753.9	747.9
37.5°	772.8	772.2	768.7	762.7	753.3	742.6	730.2	714.8	699.4	682.8	666.8
40°	737.3	735.5	732.5	724.3	713.6	700.6	684.0	665.0	640.2	614.7	588.6
42.5°	676.9	677.5	673.9	667.4	657.3	644.9	627.7	607.0	580.4	550.1	516.4
45°	606.4	606.4	605.2	599.9	592.8	582.7	569.7	552.5	526.5	495.7	459.5
47.5°	533.0	533.6	531.8	530.6	527.6	521.1	511.7	498.6	480.3	450.7	414.5
50°	458.4	458.4	461.3	460.7	460.7	458.4	454.2	446.5	430.5	406.8	373.1
52.5°	383.7	384.9	386.7	389.1	392.0	396.8	392.0	388.5	378.4	360.0	331.0
55°	306.8	307.9	310.9	315.0	318.6	323.3	324.5	324.5	319.2	306.8	284.8
57.5°	241.0	239.2	241.6	245.2	249.9	254.6	258.2	262.3	261.7	253.5	235.7
60°	181.2	181.8	183.6	187.1	190.7	194.8	199.6	203.1	204.9	200.8	189.5
62.5°	132.1	132.1	134.4	138.0	139.8	145.7	148.6	150.4	152.2	151.6	144.5
65°	92.4	93.6	94.8	96.5	98.3	101.9	103.6	107.2	108.4	109.0	103.6
67.5°	65.1	63.4	64.6	65.7	67.5	69.9	73.4	73.4	75.2	75.2	71.7
70°	41.5	41.5	42.0	43.8	45.0	45.6	46.8	48.0	49.7	49.2	49.2
72.5°	27.8	27.2	27.8	28.4	29.0	30.8	30.8	31.4	32.6	33.2	30.8
75°	14.2	14.8	16.0	15.4	17.2	16.0	16.6	18.4	17.8	16.6	16.6
77.5°	11.8	11.8	11.8	11.3	12.4	12.4	11.8	13.0	12.4	12.4	11.8
80°	8.3	8.9	8.3	7.7	8.3	7.7	7.7	7.7	7.7	7.7	7.1
82.5°	6.5	5.3	5.9	5.3	5.9	5.9	5.3	4.7	4.7	5.3	4.7
85°	4.7	3.6	4.1	4.1	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



TEST NUMBER: P246038

CATALOG NUMBER: LSR8B20D010 EC8B20830 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3
2.5°	1105.0	1104.4	1105.6	1105.0	1105.0	1104.4	1105.0	1104.4	1105.6	1103.3	1103.8
5°	1105.0	1103.8	1104.4	1105.0	1105.6	1104.4	1104.4	1104.4	1105.6	1104.4	1105.0
7.5°	1102.7	1102.1	1103.8	1105.0	1104.4	1103.8	1105.0	1104.4	1105.6	1105.0	1106.2
10°	1097.9	1098.5	1099.7	1101.5	1102.1	1102.7	1103.8	1103.8	1105.6	1103.3	1104.4
12.5°	1090.8	1093.2	1096.2	1097.3	1099.7	1099.7	1100.9	1101.5	1102.7	1102.1	1103.8
15°	1081.9	1084.9	1088.4	1091.4	1094.4	1096.2	1097.9	1098.5	1100.3	1098.5	1099.1
17.5°	1071.3	1074.8	1080.2	1083.7	1088.4	1090.2	1092.6	1093.8	1095.6	1094.4	1095.0
20°	1056.5	1060.6	1066.5	1071.9	1074.8	1079.0	1081.9	1083.7	1084.9	1083.7	1084.3
22.5°	1035.7	1041.7	1049.4	1053.5	1059.4	1063.0	1063.6	1067.7	1070.7	1067.7	1068.9
25°	1011.5	1017.4	1023.3	1032.2	1037.5	1041.7	1045.8	1046.4	1049.4	1048.8	1048.2
27.5°	971.2	978.9	989.0	996.1	1003.2	1009.7	1014.4	1015.6	1018.6	1017.4	1018.0
30°	916.1	924.4	933.9	945.1	955.2	961.7	967.6	971.8	974.7	973.0	972.4
32.5°	838.0	846.2	856.3	867.6	879.4	888.9	896.0	901.3	904.9	903.7	900.7
35°	748.5	750.9	757.4	766.3	776.4	786.4	792.9	798.9	803.0	804.2	804.2
37.5°	656.7	649.0	644.3	644.3	650.2	654.4	660.3	663.8	670.4	672.7	674.5
40°	567.9	550.1	533.6	521.1	512.8	512.2	512.2	514.0	519.9	527.6	534.8
42.5°	488.6	460.1	434.7	411.6	395.0	385.5	381.4	382.0	386.7	393.8	405.6
45°	425.2	389.7	357.7	329.8	307.3	292.5	285.4	284.8	288.4	296.7	309.7
47.5°	376.0	338.1	302.0	270.0	245.8	229.8	221.5	219.1	221.5	229.2	244.6
50°	335.2	296.1	258.8	225.6	199.6	183.0	175.3	172.3	175.3	181.8	197.2
52.5°	297.3	257.0	222.1	190.1	162.3	148.0	139.8	138.0	139.8	147.5	159.9
55°	253.5	219.1	184.8	152.8	128.5	114.3	107.8	106.0	107.8	114.9	127.9
57.5°	210.2	180.6	150.4	121.4	100.7	88.2	82.3	79.9	84.1	88.8	104.2
60°	170.0	146.3	120.8	95.3	78.2	66.9	62.2	61.6	62.8	68.7	79.3
62.5°	133.2	113.7	93.6	72.8	58.6	53.9	48.0	47.4	48.6	52.1	60.4
65°	95.9	83.5	68.1	53.3	42.0	35.5	33.2	33.8	34.9	37.3	45.0
67.5°	66.9	58.0	47.4	37.3	29.0	26.1	23.7	23.1	23.7	27.8	32.0
70°	45.0	39.7	32.0	28.4	20.1	16.0	16.6	14.8	17.2	17.2	20.7
72.5°	29.6	26.1	21.3	16.6	14.2	11.3	11.3	10.7	11.8	12.4	15.4
75°	15.4	11.8	11.8	8.3	5.9	3.0	5.3	4.7	4.1	4.7	5.9
77.5°	10.7	8.9	8.3	6.5	5.9	4.7	4.7	4.7	4.7	5.3	5.9
80°	6.5	6.5	4.7	4.1	3.6	3.0	3.6	3.6	3.6	3.6	4.1
82.5°	4.1	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	4.1	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



TEST NUMBER: P246038

CATALOG NUMBER: LSR8B20D010 EC8B20830 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3	1103.3
2.5°	1105.0	1105.6	1105.6	1105.0	1105.0	1103.8	1106.2	1104.4	1105.0	1107.4	1105.6
5°	1106.2	1106.8	1106.8	1106.2	1106.2	1106.2	1106.8	1106.8	1106.2	1105.6	1106.8
7.5°	1108.6	1108.0	1108.0	1106.8	1106.8	1105.6	1106.8	1105.0	1106.2	1105.0	1106.8
10°	1105.6	1106.2	1105.6	1105.0	1105.0	1104.4	1104.4	1102.7	1103.3	1101.5	1102.7
12.5°	1103.8	1103.3	1103.3	1102.1	1100.9	1099.7	1099.1	1097.3	1097.3	1093.2	1095.0
15°	1099.1	1099.7	1097.9	1095.6	1094.4	1091.4	1090.2	1087.9	1085.5	1082.5	1083.1
17.5°	1095.0	1093.2	1090.8	1088.4	1083.7	1081.3	1079.0	1075.4	1074.2	1070.7	1069.5
20°	1082.5	1081.3	1078.4	1074.2	1071.3	1065.9	1063.6	1060.0	1057.1	1053.5	1051.7
22.5°	1066.5	1065.3	1061.8	1057.7	1052.9	1050.6	1048.2	1041.7	1038.7	1035.1	1034.6
25°	1046.4	1044.6	1041.1	1036.3	1034.0	1027.5	1025.1	1020.3	1019.2	1015.6	1015.0
27.5°	1015.6	1013.2	1009.1	1003.2	999.0	994.9	992.5	989.0	987.8	984.2	983.6
30°	969.4	966.5	958.2	955.8	948.7	944.5	944.5	939.8	940.4	938.0	938.0
32.5°	896.6	891.8	885.3	880.6	875.8	873.5	873.5	871.7	872.9	872.9	874.1
35°	800.0	793.5	790.0	787.0	787.0	789.4	796.5	798.3	801.8	804.8	807.2
37.5°	676.3	675.7	679.8	683.4	692.3	702.3	714.8	725.4	735.5	742.6	749.7
40°	542.4	557.3	569.1	585.7	599.3	618.8	641.3	659.7	676.9	689.3	702.3
42.5°	423.4	442.4	467.2	491.5	515.8	542.4	572.1	597.5	620.0	637.2	650.8
45°	329.8	355.9	386.1	416.9	448.3	481.5	512.2	538.3	562.0	579.8	593.4
47.5°	265.9	294.3	328.7	362.4	398.0	432.9	467.2	489.7	509.3	523.5	535.9
50°	219.7	249.9	286.0	324.5	360.0	395.0	424.6	446.5	462.5	474.9	482.6
52.5°	183.6	215.6	254.1	292.5	328.1	360.0	386.7	403.3	416.3	425.2	432.3
55°	151.6	182.4	218.5	254.6	289.6	319.8	341.7	354.1	364.2	369.5	373.7
57.5°	123.8	152.2	185.4	218.5	248.7	273.6	290.8	303.2	307.9	312.1	311.5
60°	97.1	123.8	154.0	182.4	208.5	228.6	241.0	248.1	251.7	253.5	252.3
62.5°	76.4	100.7	123.8	148.6	167.6	184.8	196.6	196.6	198.4	199.0	200.8
65°	56.8	75.2	95.3	113.7	129.1	140.3	146.9	148.6	151.0	150.4	149.2
67.5°	42.0	55.7	70.5	84.1	94.8	101.9	106.6	110.7	110.2	109.0	108.4
70°	29.0	37.9	50.9	59.2	66.9	74.0	75.2	75.8	76.4	77.0	75.8
72.5°	20.1	26.6	33.8	40.9	45.6	48.6	51.5	52.1	52.1	52.1	51.5
75°	10.1	13.6	20.1	23.1	27.2	28.4	30.8	30.8	32.6	30.2	29.6
77.5°	8.9	10.7	14.2	16.6	18.4	20.1	20.7	22.5	21.9	20.7	21.3
80°	5.3	6.5	8.9	10.1	12.4	13.0	13.6	14.2	13.6	14.2	14.2
82.5°	4.1	4.7	5.9	5.9	7.7	7.7	8.3	8.3	8.9	8.9	8.9
85°	2.4	4.1	3.6	7.1	4.7	4.7	5.9	7.1	5.9	5.9	7.1
87.5°	2.4	2.4	1.8	2.4	2.4	2.4	3.0	3.6	3.6	4.1	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: P246038

CATALOG NUMBER: LSR8B20D010 EC8B20830 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1103.3	1103.3	1103.3	1103.3
2.5°	1105.0	1106.2	1104.4	1103.8
5°	1106.8	1106.8	1105.6	1105.6
7.5°	1106.8	1106.8	1105.0	1103.8
10°	1102.1	1102.1	1100.3	1099.1
12.5°	1093.2	1093.2	1092.6	1090.8
15°	1081.9	1081.9	1079.6	1077.8
17.5°	1066.5	1067.7	1064.8	1064.8
20°	1050.0	1049.4	1047.0	1045.8
22.5°	1032.8	1031.6	1031.0	1027.5
25°	1014.4	1013.2	1011.5	1009.7
27.5°	983.0	982.4	980.7	978.3
30°	935.1	934.5	932.1	932.1
32.5°	872.9	872.3	869.9	870.5
35°	808.3	810.7	809.5	807.2
37.5°	754.4	756.2	757.4	756.2
40°	709.4	714.8	715.4	716.6
42.5°	661.5	668.6	671.0	672.1
45°	604.0	610.5	615.9	614.7
47.5°	545.4	550.1	554.9	551.3
50°	489.2	492.1	493.9	493.9
52.5°	435.9	435.9	435.3	435.9
55°	374.9	374.9	372.5	373.7
57.5°	310.9	312.1	310.3	307.3
60°	251.7	248.7	247.5	245.8
62.5°	196.0	196.0	191.9	197.2
65°	146.9	145.1	143.3	142.7
67.5°	106.6	106.0	104.2	103.6
70°	75.2	72.8	72.2	71.1
72.5°	50.3	50.3	49.2	49.2
75°	30.8	27.8	27.2	27.8
77.5°	21.3	20.7	20.7	20.1
80°	14.2	13.6	14.8	13.0
82.5°	8.9	9.5	8.9	9.5
85°	5.9	7.1	6.5	6.5
87.5°	3.6	3.6	3.6	3.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)