

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: P246056

Luminaire Tested: **LSR8B20D010 EC8B20850 8LBDW0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246056  
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 EC8B20850 8LBDW0GPH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 5000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2202.0 lumens  
Efficiency: N/A  
Efficacy: 103.4 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

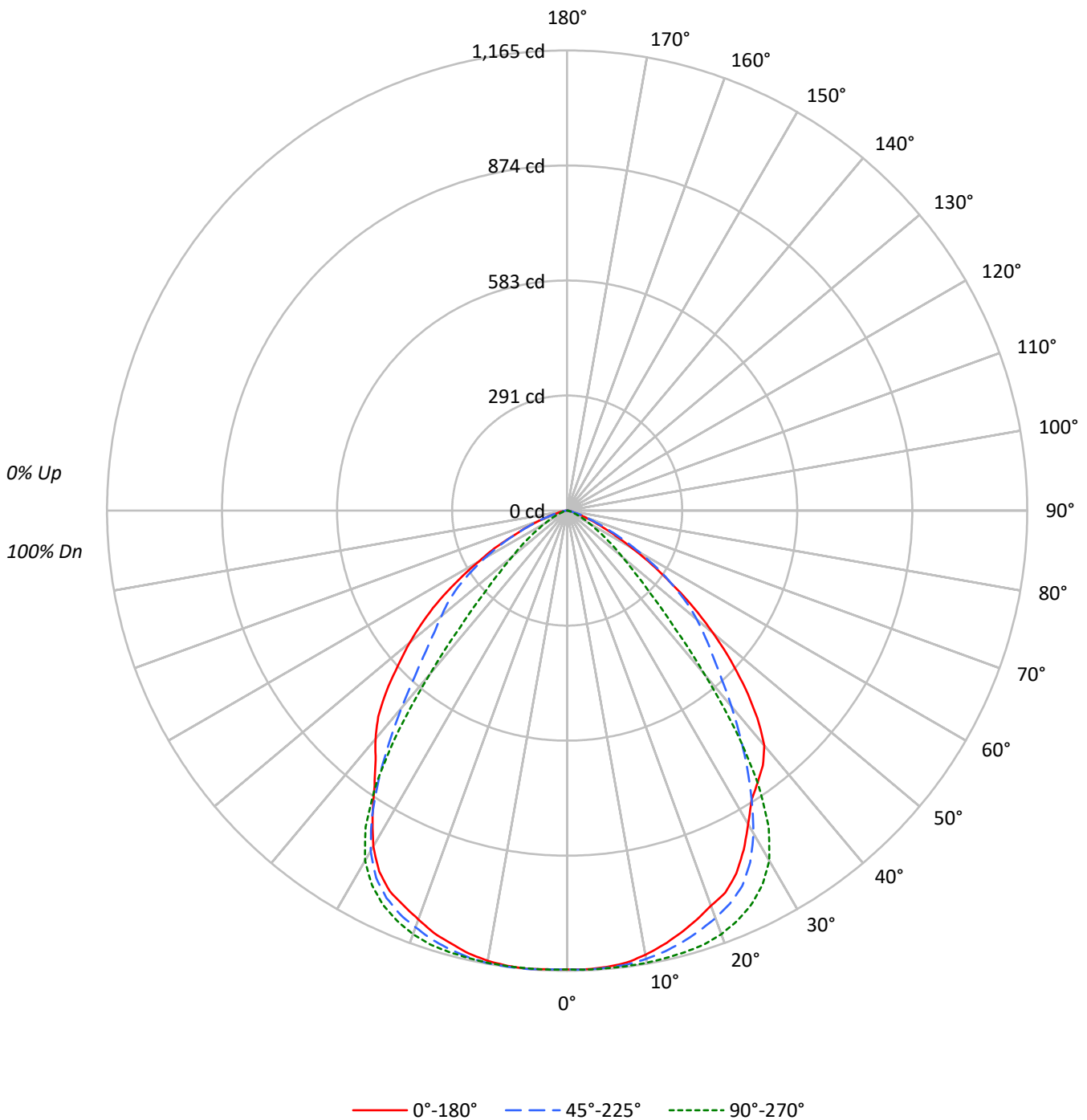
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	35826	35826	35826
5°	35904	36003	36040
10°	35755	36397	36244
15°	35359	36930	36234
20°	34932	37449	36140
25°	34480	37495	36178
30°	32619	36440	34952
35°	31647	31670	31998
40°	31253	21789	30376
45°	27849	13083	28228
50°	23156	8707	24951
55°	17365	6000	21155
60°	11767	4003	15961
65°	7099	2598	10967
70°	3940	1406	6744
75°	1787	596	3491
80°	1545	657	2433
85°	1769	885	2441



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.9	5.0
10°-20°	322.0	14.6
20°-30°	488.7	22.2
30°-40°	513.3	23.3
40°-50°	384.9	17.5
50°-60°	246.9	11.2
60°-70°	105.6	4.8
70°-80°	25.0	1.1
80°-90°	4.6	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°	921.6	41.9
0°-40°	1435.0	65.2
0°-60°	2066.8	93.9
0°-90°	2202.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2202.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1162	1162	1162	1162	1162	
5°	1160	1162	1163	1165	1164	110
15°	1108	1131	1157	1149	1135	312
25°	1013	1049	1102	1082	1063	463
35°	841	794	841	831	850	528
45°	639	522	300	507	647	489
55°	323	323	112	337	394	293
65°	97	115	36	148	150	104
75°	15	18	5	30	29	22
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°	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8
2.5°	1162.4	1163.7	1163.1	1163.1	1162.4	1163.1	1163.1	1164.3	1164.3	1163.1	1162.4
5°	1159.9	1161.2	1161.2	1159.9	1159.9	1163.1	1161.2	1162.4	1162.4	1161.8	1161.8
7.5°	1154.3	1154.3	1156.8	1155.0	1155.0	1156.8	1156.2	1157.5	1158.7	1159.3	1159.3
10°	1141.9	1143.1	1143.7	1143.7	1144.4	1146.2	1147.5	1150.0	1151.2	1152.5	1153.1
12.5°	1126.3	1128.1	1128.8	1128.1	1130.0	1132.5	1135.6	1138.7	1140.6	1143.1	1145.0
15°	1107.6	1107.6	1108.8	1110.7	1111.9	1115.7	1118.8	1122.5	1127.5	1130.6	1133.8
17.5°	1087.0	1088.2	1090.1	1090.1	1092.6	1098.8	1100.7	1106.3	1111.9	1115.0	1121.3
20°	1064.5	1065.8	1067.7	1068.9	1072.0	1077.0	1080.7	1085.7	1092.0	1097.6	1103.8
22.5°	1047.1	1044.6	1045.8	1047.1	1050.2	1054.6	1058.9	1065.2	1071.4	1077.0	1083.2
25°	1013.4	1014.0	1015.9	1017.1	1020.9	1024.6	1029.6	1037.1	1042.7	1048.9	1055.8
27.5°	967.9	968.5	971.6	971.6	974.7	981.0	984.1	990.3	997.8	1004.0	1012.2
30°	916.1	917.4	917.4	919.9	921.7	924.8	928.0	934.2	937.9	943.6	954.8
32.5°	868.7	870.0	869.3	868.7	866.8	866.2	865.6	866.8	868.1	870.0	874.3
35°	840.7	837.5	835.0	830.7	825.7	819.4	813.8	806.4	799.5	793.9	787.6
37.5°	813.8	813.2	809.5	803.2	793.2	782.0	768.9	752.7	736.5	719.0	702.2
40°	776.4	774.5	771.4	762.7	751.5	737.8	720.3	700.3	674.1	647.3	619.9
42.5°	712.8	713.4	709.7	702.8	692.2	679.1	661.0	639.2	611.2	579.3	543.8
45°	638.6	638.6	637.3	631.7	624.3	613.6	599.9	581.8	554.4	522.0	483.9
47.5°	561.3	561.9	560.0	558.8	555.6	548.8	538.8	525.1	505.8	474.6	436.5
50°	482.7	482.7	485.8	485.2	485.2	482.7	478.3	470.2	453.4	428.4	392.9
52.5°	404.1	405.4	407.2	409.7	412.8	417.8	412.8	409.1	398.5	379.2	348.6
55°	323.0	324.3	327.4	331.8	335.5	340.5	341.7	341.7	336.1	323.0	300.0
57.5°	253.8	251.9	254.4	258.2	263.2	268.2	271.9	276.3	275.6	266.9	248.2
60°	190.8	191.5	193.3	197.1	200.8	205.2	210.2	213.9	215.8	211.4	199.6
62.5°	139.1	139.1	141.6	145.3	147.2	153.4	156.5	158.4	160.3	159.6	152.2
65°	97.3	98.5	99.8	101.7	103.5	107.3	109.1	112.9	114.1	114.7	109.1
67.5°	68.6	66.7	68.0	69.2	71.1	73.6	77.3	77.3	79.2	79.2	75.5
70°	43.7	43.7	44.3	46.1	47.4	48.0	49.3	50.5	52.4	51.8	51.8
72.5°	29.3	28.7	29.3	29.9	30.6	32.4	32.4	33.1	34.3	34.9	32.4
75°	15.0	15.6	16.8	16.2	18.1	16.8	17.5	19.3	18.7	17.5	17.5
77.5°	12.5	12.5	12.5	11.9	13.1	13.1	12.5	13.7	13.1	13.1	12.5
80°	8.7	9.4	8.7	8.1	8.7	8.1	8.1	8.1	8.1	8.1	7.5
82.5°	6.9	5.6	6.2	5.6	6.2	6.2	5.6	5.0	5.0	5.6	5.0
85°	5.0	3.7	4.4	4.4	3.7	3.7	3.7	3.7	3.7	3.1	3.1
87.5°	3.1	1.9	1.9	1.9	2.5	2.5	2.5	1.9	2.5	2.5	1.3
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°	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8
2.5°	1163.7	1163.1	1164.3	1163.7	1163.7	1163.1	1163.7	1163.1	1164.3	1161.8	1162.4
5°	1163.7	1162.4	1163.1	1163.7	1164.3	1163.1	1163.1	1163.1	1164.3	1163.1	1163.7
7.5°	1161.2	1160.6	1162.4	1163.7	1163.1	1162.4	1163.7	1163.1	1164.3	1163.7	1164.9
10°	1156.2	1156.8	1158.1	1159.9	1160.6	1161.2	1162.4	1162.4	1164.3	1161.8	1163.1
12.5°	1148.7	1151.2	1154.3	1155.6	1158.1	1158.1	1159.3	1159.9	1161.2	1160.6	1162.4
15°	1139.4	1142.5	1146.2	1149.4	1152.5	1154.3	1156.2	1156.8	1158.7	1156.8	1157.5
17.5°	1128.1	1131.9	1137.5	1141.2	1146.2	1148.1	1150.6	1151.8	1153.7	1152.5	1153.1
20°	1112.5	1116.9	1123.2	1128.8	1131.9	1136.2	1139.4	1141.2	1142.5	1141.2	1141.9
22.5°	1090.7	1097.0	1105.1	1109.4	1115.7	1119.4	1120.0	1124.4	1127.5	1124.4	1125.7
25°	1065.2	1071.4	1077.6	1087.0	1092.6	1097.0	1101.3	1102.0	1105.1	1104.4	1103.8
27.5°	1022.7	1030.9	1041.5	1048.9	1056.4	1063.3	1068.3	1069.5	1072.6	1071.4	1072.0
30°	964.7	973.5	983.5	995.3	1005.9	1012.8	1019.0	1023.4	1026.5	1024.6	1024.0
32.5°	882.4	891.2	901.8	913.6	926.1	936.1	943.6	949.2	952.9	951.7	948.5
35°	788.3	790.8	797.6	807.0	817.6	828.2	835.0	841.3	845.6	846.9	846.9
37.5°	691.6	683.5	678.5	678.5	684.7	689.1	695.3	699.1	706.0	708.4	710.3
40°	598.1	579.3	561.9	548.8	540.1	539.4	539.4	541.3	547.5	555.6	563.1
42.5°	514.5	484.6	457.7	433.4	416.0	406.0	401.6	402.2	407.2	414.7	427.2
45°	447.8	410.3	376.7	347.4	323.7	308.1	300.6	300.0	303.7	312.4	326.2
47.5°	396.0	356.1	318.0	284.4	258.8	242.0	233.2	230.7	233.2	241.3	257.6
50°	353.0	311.8	272.5	237.6	210.2	192.7	184.6	181.5	184.6	191.5	207.7
52.5°	313.1	270.7	233.9	200.2	170.9	155.9	147.2	145.3	147.2	155.3	168.4
55°	266.9	230.7	194.6	160.9	135.3	120.4	113.5	111.6	113.5	121.0	134.7
57.5°	221.4	190.2	158.4	127.8	106.0	92.9	86.7	84.2	88.5	93.5	109.8
60°	179.0	154.0	127.2	100.4	82.3	70.5	65.5	64.9	66.1	72.3	83.6
62.5°	140.3	119.7	98.5	76.7	61.7	56.7	50.5	49.9	51.1	54.9	63.6
65°	101.0	87.9	71.7	56.1	44.3	37.4	34.9	35.6	36.8	39.3	47.4
67.5°	70.5	61.1	49.9	39.3	30.6	27.4	24.9	24.3	24.9	29.3	33.7
70°	47.4	41.8	33.7	29.9	21.2	16.8	17.5	15.6	18.1	18.1	21.8
72.5°	31.2	27.4	22.4	17.5	15.0	11.9	11.9	11.2	12.5	13.1	16.2
75°	16.2	12.5	12.5	8.7	6.2	3.1	5.6	5.0	4.4	5.0	6.2
77.5°	11.2	9.4	8.7	6.9	6.2	5.0	5.0	5.0	5.0	5.6	6.2
80°	6.9	6.9	5.0	4.4	3.7	3.1	3.7	3.7	3.7	3.7	4.4
82.5°	4.4	3.7	3.7	3.1	3.1	2.5	2.5	2.5	2.5	2.5	3.7
85°	3.7	2.5	2.5	1.9	2.5	4.4	1.9	2.5	2.5	2.5	1.9
87.5°	1.3	1.9	1.9	1.9	1.3	0.6	1.3	1.9	1.9	3.1	2.5
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°	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8	1161.8
2.5°	1163.7	1164.3	1164.3	1163.7	1163.7	1162.4	1164.9	1163.1	1163.7	1166.2	1164.3
5°	1164.9	1165.6	1165.6	1164.9	1164.9	1164.9	1165.6	1165.6	1164.9	1164.3	1165.6
7.5°	1167.4	1166.8	1166.8	1165.6	1165.6	1164.3	1165.6	1163.7	1164.9	1163.7	1165.6
10°	1164.3	1164.9	1164.3	1163.7	1163.7	1163.1	1163.1	1161.2	1161.8	1159.9	1161.2
12.5°	1162.4	1161.8	1161.8	1160.6	1159.3	1158.1	1157.5	1155.6	1155.6	1151.2	1153.1
15°	1157.5	1158.1	1156.2	1153.7	1152.5	1149.4	1148.1	1145.6	1143.1	1140.0	1140.6
17.5°	1153.1	1151.2	1148.7	1146.2	1141.2	1138.7	1136.2	1132.5	1131.3	1127.5	1126.3
20°	1140.0	1138.7	1135.6	1131.3	1128.1	1122.5	1120.0	1116.3	1113.2	1109.4	1107.6
22.5°	1123.2	1121.9	1118.2	1113.8	1108.8	1106.3	1103.8	1097.0	1093.8	1090.1	1089.5
25°	1102.0	1100.1	1096.3	1091.4	1088.8	1082.0	1079.5	1074.5	1073.3	1069.5	1068.9
27.5°	1069.5	1067.0	1062.7	1056.4	1052.1	1047.7	1045.2	1041.5	1040.2	1036.5	1035.9
30°	1020.9	1017.8	1009.0	1006.5	999.0	994.7	994.7	989.7	990.3	987.8	987.8
32.5°	944.2	939.2	932.3	927.3	922.3	919.9	919.9	918.0	919.2	919.2	920.5
35°	842.5	835.7	831.9	828.8	828.8	831.3	838.8	840.7	844.4	847.5	850.0
37.5°	712.2	711.6	715.9	719.7	729.0	739.6	752.7	764.0	774.5	782.0	789.5
40°	571.2	586.8	599.3	616.8	631.1	651.7	675.4	694.7	712.8	725.9	739.6
42.5°	445.9	465.8	492.0	517.6	543.2	571.2	602.4	629.2	652.9	671.0	685.4
45°	347.4	374.8	406.6	439.0	472.1	507.0	539.4	566.9	591.8	610.5	624.9
47.5°	280.0	309.9	346.1	381.7	419.1	455.9	492.0	515.7	536.3	551.3	564.4
50°	231.4	263.2	301.2	341.7	379.2	416.0	447.1	470.2	487.1	500.2	508.3
52.5°	193.3	227.0	267.5	308.1	345.5	379.2	407.2	424.7	438.4	447.8	455.2
55°	159.6	192.1	230.1	268.2	305.0	336.8	359.8	372.9	383.5	389.1	393.5
57.5°	130.3	160.3	195.2	230.1	261.9	288.1	306.2	319.3	324.3	328.7	328.0
60°	102.3	130.3	162.1	192.1	219.5	240.7	253.8	261.3	265.0	266.9	265.7
62.5°	80.4	106.0	130.3	156.5	176.5	194.6	207.1	207.1	208.9	209.5	211.4
65°	59.9	79.2	100.4	119.7	135.9	147.8	154.7	156.5	159.0	158.4	157.2
67.5°	44.3	58.6	74.2	88.5	99.8	107.3	112.2	116.6	116.0	114.7	114.1
70°	30.6	39.9	53.6	62.4	70.5	78.0	79.2	79.8	80.4	81.1	79.8
72.5°	21.2	28.1	35.6	43.0	48.0	51.1	54.3	54.9	54.9	54.9	54.3
75°	10.6	14.3	21.2	24.3	28.7	29.9	32.4	32.4	34.3	31.8	31.2
77.5°	9.4	11.2	15.0	17.5	19.3	21.2	21.8	23.7	23.1	21.8	22.4
80°	5.6	6.9	9.4	10.6	13.1	13.7	14.3	15.0	14.3	15.0	15.0
82.5°	4.4	5.0	6.2	6.2	8.1	8.1	8.7	8.7	9.4	9.4	9.4
85°	2.5	4.4	3.7	7.5	5.0	5.0	6.2	7.5	6.2	6.2	7.5
87.5°	2.5	2.5	1.9	2.5	2.5	2.5	3.1	3.7	3.7	4.4	3.7
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: P246056

CATALOG NUMBER: LSR8B20D010 EC8B20850 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1161.8	1161.8	1161.8	1161.8
2.5°	1163.7	1164.9	1163.1	1162.4
5°	1165.6	1165.6	1164.3	1164.3
7.5°	1165.6	1165.6	1163.7	1162.4
10°	1160.6	1160.6	1158.7	1157.5
12.5°	1151.2	1151.2	1150.6	1148.7
15°	1139.4	1139.4	1136.9	1135.0
17.5°	1123.2	1124.4	1121.3	1121.3
20°	1105.7	1105.1	1102.6	1101.3
22.5°	1087.6	1086.4	1085.7	1082.0
25°	1068.3	1067.0	1065.2	1063.3
27.5°	1035.2	1034.6	1032.7	1030.2
30°	984.7	984.1	981.6	981.6
32.5°	919.2	918.6	916.1	916.7
35°	851.2	853.8	852.5	850.0
37.5°	794.5	796.4	797.6	796.4
40°	747.1	752.7	753.3	754.6
42.5°	696.6	704.1	706.6	707.8
45°	636.1	643.0	648.6	647.3
47.5°	574.4	579.3	584.3	580.6
50°	515.1	518.2	520.1	520.1
52.5°	459.0	459.0	458.4	459.0
55°	394.8	394.8	392.3	393.5
57.5°	327.4	328.7	326.8	323.7
60°	265.0	261.9	260.7	258.8
62.5°	206.4	206.4	202.1	207.7
65°	154.7	152.8	150.9	150.3
67.5°	112.2	111.6	109.8	109.1
70°	79.2	76.7	76.1	74.8
72.5°	53.0	53.0	51.8	51.8
75°	32.4	29.3	28.7	29.3
77.5°	22.4	21.8	21.8	21.2
80°	15.0	14.3	15.6	13.7
82.5°	9.4	10.0	9.4	10.0
85°	6.2	7.5	6.9	6.9
87.5°	3.7	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)