

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: P246044

Luminaire Tested: **LSR8B20D010 EC8B20835 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246044
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 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2174.0 lumens
Efficiency: N/A
Efficacy: 102.1 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

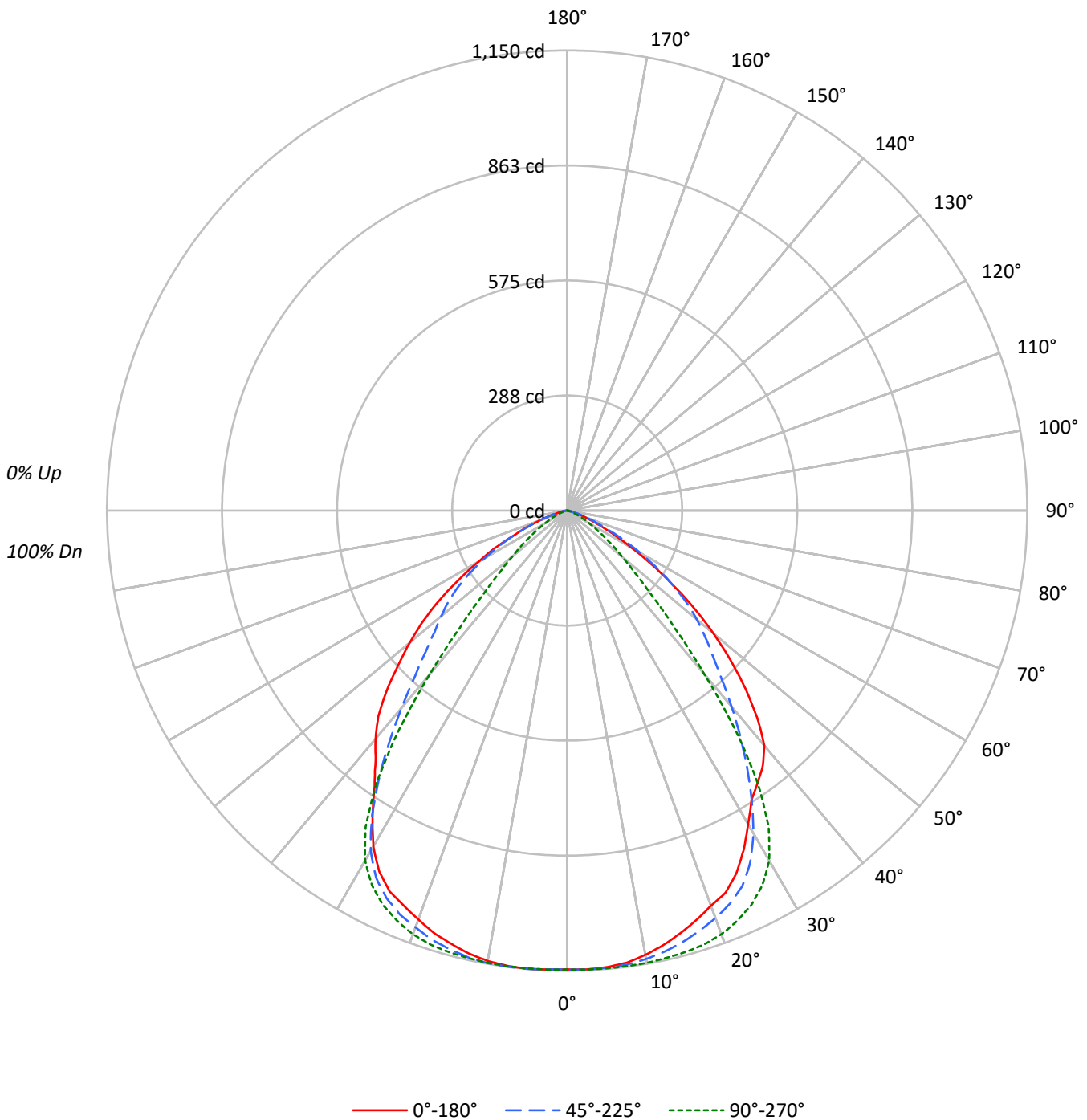
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	35369	35369	35369
5°	35449	35545	35582
10°	35298	35937	35780
15°	34909	36461	35774
20°	34489	36973	35680
25°	34041	37015	35719
30°	32206	35977	34506
35°	31245	31267	31591
40°	30855	21512	29989
45°	27496	12917	27871
50°	22864	8597	24634
55°	17145	5925	20886
60°	11619	3947	15757
65°	7012	2561	10828
70°	3886	1388	6663
75°	1763	584	3443
80°	1527	657	2397
85°	1734	885	2406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.5	5.0
10°-20°	317.9	14.6
20°-30°	482.5	22.2
30°-40°	506.8	23.3
40°-50°	380.0	17.5
50°-60°	243.8	11.2
60°-70°	104.3	4.8
70°-80°	24.6	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°	909.9	41.9
0°-40°	1416.7	65.2
0°-60°	2040.5	93.9
0°-90°	2174.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2174.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1147	1147	1147	1147	1147	
5°	1145	1147	1148	1150	1150	109
15°	1094	1116	1142	1135	1121	308
25°	1000	1036	1088	1068	1050	457
35°	830	784	831	821	839	521
45°	630	515	296	501	639	483
55°	319	319	110	332	388	289
65°	96	113	35	146	148	103
75°	15	17	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°	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0
2.5°	1147.7	1148.9	1148.3	1148.3	1147.7	1148.3	1148.3	1149.5	1149.5	1148.3	1147.7
5°	1145.2	1146.4	1146.4	1145.2	1145.2	1148.3	1146.4	1147.7	1147.7	1147.0	1147.0
7.5°	1139.7	1139.7	1142.1	1140.3	1140.3	1142.1	1141.5	1142.7	1144.0	1144.6	1144.6
10°	1127.3	1128.6	1129.2	1129.2	1129.8	1131.6	1132.9	1135.4	1136.6	1137.8	1138.4
12.5°	1112.0	1113.8	1114.4	1113.8	1115.6	1118.1	1121.2	1124.3	1126.1	1128.6	1130.4
15°	1093.5	1093.5	1094.7	1096.6	1097.8	1101.5	1104.6	1108.3	1113.2	1116.3	1119.3
17.5°	1073.2	1074.4	1076.2	1076.2	1078.7	1084.9	1086.7	1092.3	1097.8	1100.9	1107.0
20°	1051.0	1052.2	1054.1	1055.3	1058.4	1063.3	1067.0	1071.9	1078.1	1083.6	1089.8
22.5°	1033.8	1031.3	1032.5	1033.8	1036.8	1041.2	1045.5	1051.6	1057.8	1063.3	1069.5
25°	1000.5	1001.1	1003.0	1004.2	1007.9	1011.6	1016.5	1023.9	1029.4	1035.6	1042.4
27.5°	955.6	956.2	959.3	959.3	962.3	968.5	971.6	977.7	985.1	991.3	999.3
30°	904.5	905.7	905.7	908.2	910.0	913.1	916.2	922.3	926.0	931.6	942.6
32.5°	857.7	858.9	858.3	857.7	855.8	855.2	854.6	855.8	857.1	858.9	863.2
35°	830.0	826.9	824.4	820.1	815.2	809.0	803.5	796.1	789.3	783.8	777.6
37.5°	803.5	802.9	799.2	793.0	783.2	772.1	759.2	743.1	727.1	709.9	693.3
40°	766.5	764.7	761.6	753.0	741.9	728.4	711.1	691.4	665.6	639.1	612.0
42.5°	703.7	704.4	700.7	693.9	683.4	670.5	652.6	631.1	603.4	572.0	536.9
45°	630.5	630.5	629.2	623.7	616.3	605.8	592.3	574.4	547.4	515.3	477.8
47.5°	554.1	554.7	552.9	551.7	548.6	541.8	532.0	518.4	499.3	468.5	431.0
50°	476.6	476.6	479.6	479.0	479.0	476.6	472.2	464.2	447.6	423.0	387.9
52.5°	399.0	400.2	402.1	404.5	407.6	412.5	407.6	403.9	393.4	374.3	344.2
55°	318.9	320.2	323.2	327.5	331.3	336.2	337.4	337.4	331.9	318.9	296.2
57.5°	250.6	248.7	251.2	254.9	259.8	264.8	268.4	272.8	272.1	263.5	245.0
60°	188.4	189.0	190.9	194.6	198.3	202.6	207.5	211.2	213.0	208.7	197.0
62.5°	137.3	137.3	139.8	143.5	145.3	151.5	154.5	156.4	158.2	157.6	150.2
65°	96.1	97.3	98.5	100.4	102.2	105.9	107.7	111.4	112.7	113.3	107.7
67.5°	67.7	65.9	67.1	68.3	70.2	72.7	76.3	76.3	78.2	78.2	74.5
70°	43.1	43.1	43.7	45.6	46.8	47.4	48.6	49.9	51.7	51.1	51.1
72.5°	28.9	28.3	28.9	29.6	30.2	32.0	32.0	32.6	33.9	34.5	32.0
75°	14.8	15.4	16.6	16.0	17.9	16.6	17.2	19.1	18.5	17.2	17.2
77.5°	12.3	12.3	12.3	11.7	12.9	12.9	12.3	13.5	12.9	12.9	12.3
80°	8.6	9.2	8.6	8.0	8.6	8.0	8.0	8.0	8.0	8.0	7.4
82.5°	6.8	5.5	6.2	5.5	6.2	6.2	5.5	4.9	4.9	5.5	4.9
85°	4.9	3.7	4.3	4.3	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	1.2
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°	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0
2.5°	1148.9	1148.3	1149.5	1148.9	1148.9	1148.3	1148.9	1148.3	1149.5	1147.0	1147.7
5°	1148.9	1147.7	1148.3	1148.9	1149.5	1148.3	1148.3	1148.3	1149.5	1148.3	1148.9
7.5°	1146.4	1145.8	1147.7	1148.9	1148.3	1147.7	1148.9	1148.3	1149.5	1148.9	1150.1
10°	1141.5	1142.1	1143.4	1145.2	1145.8	1146.4	1147.7	1147.7	1149.5	1147.0	1148.3
12.5°	1134.1	1136.6	1139.7	1140.9	1143.4	1143.4	1144.6	1145.2	1146.4	1145.8	1147.7
15°	1124.9	1128.0	1131.6	1134.7	1137.8	1139.7	1141.5	1142.1	1144.0	1142.1	1142.7
17.5°	1113.8	1117.5	1123.0	1126.7	1131.6	1133.5	1136.0	1137.2	1139.0	1137.8	1138.4
20°	1098.4	1102.7	1108.9	1114.4	1117.5	1121.8	1124.9	1126.7	1128.0	1126.7	1127.3
22.5°	1076.9	1083.0	1091.0	1095.3	1101.5	1105.2	1105.8	1110.1	1113.2	1110.1	1111.3
25°	1051.6	1057.8	1063.9	1073.2	1078.7	1083.0	1087.3	1087.9	1091.0	1090.4	1089.8
27.5°	1009.7	1017.8	1028.2	1035.6	1043.0	1049.8	1054.7	1055.9	1059.0	1057.8	1058.4
30°	952.5	961.1	971.0	982.7	993.1	999.9	1006.1	1010.4	1013.4	1011.6	1011.0
32.5°	871.2	879.8	890.3	902.0	914.3	924.2	931.6	937.1	940.8	939.6	936.5
35°	778.3	780.7	787.5	796.7	807.2	817.6	824.4	830.6	834.9	836.1	836.1
37.5°	682.8	674.8	669.9	669.9	676.0	680.3	686.5	690.2	697.0	699.4	701.3
40°	590.4	572.0	554.7	541.8	533.2	532.6	532.6	534.4	540.6	548.6	556.0
42.5°	508.0	478.4	451.9	427.9	410.7	400.8	396.5	397.1	402.1	409.4	421.7
45°	442.1	405.1	371.9	342.9	319.5	304.2	296.8	296.2	299.8	308.5	322.0
47.5°	391.0	351.6	314.0	280.8	255.5	238.9	230.3	227.8	230.3	238.3	254.3
50°	348.5	307.9	269.1	234.6	207.5	190.3	182.2	179.2	182.2	189.0	205.0
52.5°	309.1	267.2	230.9	197.6	168.7	153.9	145.3	143.5	145.3	153.3	166.2
55°	263.5	227.8	192.1	158.8	133.6	118.8	112.1	110.2	112.1	119.5	133.0
57.5°	218.6	187.8	156.4	126.2	104.7	91.7	85.6	83.1	87.4	92.3	108.4
60°	176.7	152.1	125.6	99.1	81.3	69.6	64.6	64.0	65.3	71.4	82.5
62.5°	138.5	118.2	97.3	75.7	61.0	56.0	49.9	49.3	50.5	54.2	62.8
65°	99.7	86.8	70.8	55.4	43.7	36.9	34.5	35.1	36.3	38.8	46.8
67.5°	69.6	60.3	49.3	38.8	30.2	27.1	24.6	24.0	24.6	28.9	33.2
70°	46.8	41.2	33.2	29.6	20.9	16.6	17.2	15.4	17.9	17.9	21.5
72.5°	30.8	27.1	22.2	17.2	14.8	11.7	11.7	11.1	12.3	12.9	16.0
75°	16.0	12.3	12.3	8.6	6.2	3.1	5.5	4.9	4.3	4.9	6.2
77.5°	11.1	9.2	8.6	6.8	6.2	4.9	4.9	4.9	4.9	5.5	6.2
80°	6.8	6.8	4.9	4.3	3.7	3.1	3.7	3.7	3.7	3.7	4.3
82.5°	4.3	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	4.3	1.9	2.5	2.5	2.5	1.9
87.5°	1.2	1.9	1.9	1.9	1.2	0.6	1.2	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°	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0	1147.0
2.5°	1148.9	1149.5	1149.5	1148.9	1148.9	1147.7	1150.1	1148.3	1148.9	1151.4	1149.5
5°	1150.1	1150.7	1150.7	1150.1	1150.1	1150.1	1150.7	1150.7	1150.1	1149.5	1150.7
7.5°	1152.6	1152.0	1152.0	1150.7	1150.7	1149.5	1150.7	1148.9	1150.1	1148.9	1150.7
10°	1149.5	1150.1	1149.5	1148.9	1148.9	1148.3	1148.3	1146.4	1147.0	1145.2	1146.4
12.5°	1147.7	1147.0	1147.0	1145.8	1144.6	1143.4	1142.7	1140.9	1140.9	1136.6	1138.4
15°	1142.7	1143.4	1141.5	1139.0	1137.8	1134.7	1133.5	1131.0	1128.6	1125.5	1126.1
17.5°	1138.4	1136.6	1134.1	1131.6	1126.7	1124.3	1121.8	1118.1	1116.9	1113.2	1112.0
20°	1125.5	1124.3	1121.2	1116.9	1113.8	1108.3	1105.8	1102.1	1099.0	1095.3	1093.5
22.5°	1108.9	1107.6	1103.9	1099.6	1094.7	1092.3	1089.8	1083.0	1079.9	1076.2	1075.6
25°	1087.9	1086.1	1082.4	1077.5	1075.0	1068.2	1065.8	1060.8	1059.6	1055.9	1055.3
27.5°	1055.9	1053.5	1049.2	1043.0	1038.7	1034.4	1031.9	1028.2	1027.0	1023.3	1022.7
30°	1007.9	1004.8	996.2	993.7	986.3	982.0	982.0	977.1	977.7	975.3	975.3
32.5°	932.2	927.2	920.5	915.5	910.6	908.2	908.2	906.3	907.5	907.5	908.8
35°	831.8	825.0	821.3	818.3	818.3	820.7	828.1	830.0	833.7	836.7	839.2
37.5°	703.1	702.5	706.8	710.5	719.8	730.2	743.1	754.2	764.7	772.1	779.5
40°	564.0	579.4	591.7	608.9	623.1	643.4	666.8	685.9	703.7	716.7	730.2
42.5°	440.2	459.9	485.8	511.0	536.3	564.0	594.8	621.2	644.6	662.5	676.7
45°	342.9	370.0	401.4	433.5	466.1	500.6	532.6	559.7	584.3	602.8	616.9
47.5°	276.4	306.0	341.7	376.8	413.7	450.1	485.8	509.2	529.5	544.3	557.2
50°	228.4	259.8	297.4	337.4	374.3	410.7	441.5	464.2	480.9	493.8	501.8
52.5°	190.9	224.1	264.1	304.2	341.1	374.3	402.1	419.3	432.8	442.1	449.5
55°	157.6	189.6	227.2	264.8	301.1	332.5	355.3	368.2	378.6	384.2	388.5
57.5°	128.7	158.2	192.7	227.2	258.6	284.5	302.3	315.2	320.2	324.5	323.9
60°	101.0	128.7	160.1	189.6	216.7	237.7	250.6	258.0	261.7	263.5	262.3
62.5°	79.4	104.7	128.7	154.5	174.2	192.1	204.4	204.4	206.3	206.9	208.7
65°	59.1	78.2	99.1	118.2	134.2	145.9	152.7	154.5	157.0	156.4	155.2
67.5°	43.7	57.9	73.3	87.4	98.5	105.9	110.8	115.1	114.5	113.3	112.7
70°	30.2	39.4	53.0	61.6	69.6	77.0	78.2	78.8	79.4	80.0	78.8
72.5°	20.9	27.7	35.1	42.5	47.4	50.5	53.6	54.2	54.2	54.2	53.6
75°	10.5	14.2	20.9	24.0	28.3	29.6	32.0	32.0	33.9	31.4	30.8
77.5°	9.2	11.1	14.8	17.2	19.1	20.9	21.5	23.4	22.8	21.5	22.2
80°	5.5	6.8	9.2	10.5	12.9	13.5	14.2	14.8	14.2	14.8	14.8
82.5°	4.3	4.9	6.2	6.2	8.0	8.0	8.6	8.6	9.2	9.2	9.2
85°	2.5	4.3	3.7	7.4	4.9	4.9	6.2	7.4	6.2	6.2	7.4
87.5°	2.5	2.5	1.9	2.5	2.5	2.5	3.1	3.7	3.7	4.3	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: P246044

CATALOG NUMBER: LSR8B20D010 EC8B20835 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1147.0	1147.0	1147.0	1147.0
2.5°	1148.9	1150.1	1148.3	1147.7
5°	1150.7	1150.7	1149.5	1149.5
7.5°	1150.7	1150.7	1148.9	1147.7
10°	1145.8	1145.8	1144.0	1142.7
12.5°	1136.6	1136.6	1136.0	1134.1
15°	1124.9	1124.9	1122.4	1120.6
17.5°	1108.9	1110.1	1107.0	1107.0
20°	1091.6	1091.0	1088.6	1087.3
22.5°	1073.8	1072.5	1071.9	1068.2
25°	1054.7	1053.5	1051.6	1049.8
27.5°	1022.1	1021.4	1019.6	1017.1
30°	972.2	971.6	969.1	969.1
32.5°	907.5	906.9	904.5	905.1
35°	840.4	842.9	841.7	839.2
37.5°	784.4	786.2	787.5	786.2
40°	737.6	743.1	743.8	745.0
42.5°	687.7	695.1	697.6	698.8
45°	628.0	634.8	640.3	639.1
47.5°	567.1	572.0	576.9	573.2
50°	508.6	511.6	513.5	513.5
52.5°	453.2	453.2	452.5	453.2
55°	389.7	389.7	387.3	388.5
57.5°	323.2	324.5	322.6	319.5
60°	261.7	258.6	257.4	255.5
62.5°	203.8	203.8	199.5	205.0
65°	152.7	150.8	149.0	148.4
67.5°	110.8	110.2	108.4	107.7
70°	78.2	75.7	75.1	73.9
72.5°	52.3	52.3	51.1	51.1
75°	32.0	28.9	28.3	28.9
77.5°	22.2	21.5	21.5	20.9
80°	14.8	14.2	15.4	13.5
82.5°	9.2	9.9	9.2	9.9
85°	6.2	7.4	6.8	6.8
87.5°	3.7	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)