

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: P244610

Luminaire Tested: **LSR8B20D010 EC8B20840 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244610
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 EC8B20840 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2210.0 lumens
Efficiency: N/A
Efficacy: 103.8 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

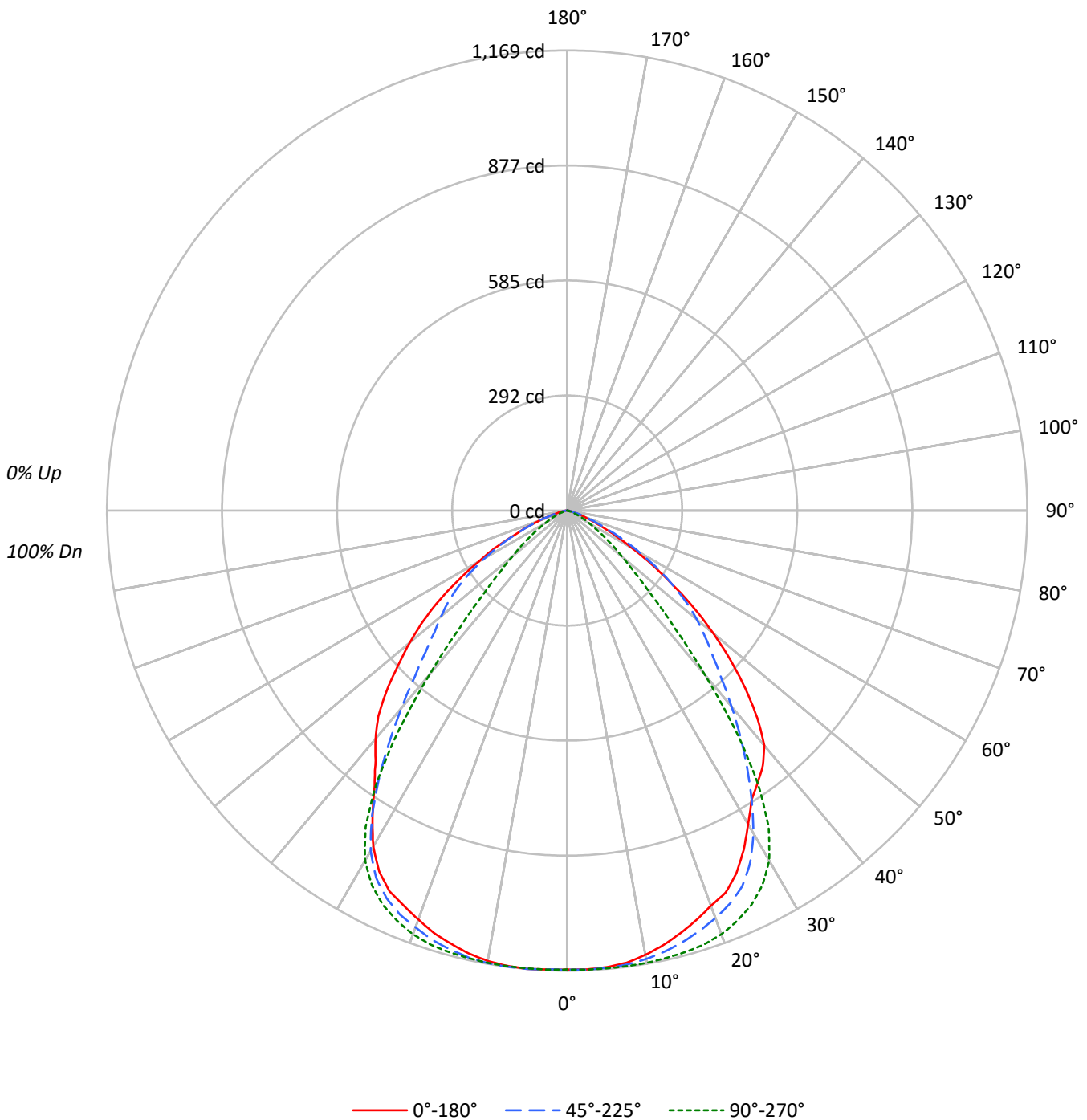
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	35955	35955	35955
5°	36037	36133	36173
10°	35884	36532	36375
15°	35487	37064	36365
20°	35060	37587	36271
25°	34606	37631	36311
30°	32737	36572	35080
35°	31760	31783	32114
40°	31366	21870	30484
45°	27949	13131	28333
50°	23238	8736	25042
55°	17429	6021	21230
60°	11810	4015	16023
65°	7121	2605	11003
70°	3949	1416	6771
75°	1787	596	3503
80°	1563	675	2451
85°	1769	885	2441



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	5.0
10°-20°	323.2	14.6
20°-30°	490.5	22.2
30°-40°	515.2	23.3
40°-50°	386.3	17.5
50°-60°	247.8	11.2
60°-70°	106.0	4.8
70°-80°	25.0	1.1
80°-90°	4.7	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°	925.0	41.9
0°-40°	1440.2	65.2
0°-60°	2074.3	93.9
0°-90°	2210.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2210.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1166	1166	1166	1166	1166	
5°	1164	1166	1167	1169	1169	111
15°	1112	1135	1161	1154	1139	314
25°	1017	1053	1106	1086	1067	465
35°	844	797	844	834	853	530
45°	641	524	301	509	650	491
55°	324	324	112	338	395	294
65°	98	115	36	148	151	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°	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0
2.5°	1166.7	1167.9	1167.3	1167.3	1166.7	1167.3	1167.3	1168.6	1168.6	1167.3	1166.7
5°	1164.2	1165.4	1165.4	1164.2	1164.2	1167.3	1165.4	1166.7	1166.7	1166.0	1166.0
7.5°	1158.5	1158.5	1161.0	1159.2	1159.2	1161.0	1160.4	1161.7	1162.9	1163.5	1163.5
10°	1146.0	1147.3	1147.9	1147.9	1148.5	1150.4	1151.6	1154.2	1155.4	1156.7	1157.3
12.5°	1130.4	1132.2	1132.9	1132.2	1134.1	1136.6	1139.8	1142.9	1144.8	1147.3	1149.1
15°	1111.6	1111.6	1112.8	1114.7	1116.0	1119.7	1122.9	1126.6	1131.6	1134.8	1137.9
17.5°	1090.9	1092.2	1094.1	1094.1	1096.6	1102.8	1104.7	1110.3	1116.0	1119.1	1125.4
20°	1068.4	1069.6	1071.5	1072.8	1075.9	1080.9	1084.7	1089.7	1095.9	1101.6	1107.8
22.5°	1050.9	1048.4	1049.6	1050.9	1054.0	1058.4	1062.8	1069.0	1075.3	1080.9	1087.2
25°	1017.1	1017.7	1019.6	1020.8	1024.6	1028.3	1033.4	1040.9	1046.5	1052.8	1059.6
27.5°	971.4	972.0	975.1	975.1	978.3	984.5	987.7	993.9	1001.4	1007.7	1015.8
30°	919.4	920.7	920.7	923.2	925.1	928.2	931.3	937.6	941.3	947.0	958.3
32.5°	871.9	873.1	872.5	871.9	870.0	869.4	868.7	870.0	871.2	873.1	877.5
35°	843.7	840.6	838.1	833.7	828.7	822.4	816.8	809.3	802.4	796.8	790.5
37.5°	816.8	816.2	812.4	806.1	796.1	784.9	771.7	755.5	739.2	721.7	704.8
40°	779.2	777.4	774.2	765.5	754.2	740.4	722.9	702.9	676.6	649.7	622.1
42.5°	715.4	716.0	712.3	705.4	694.7	681.6	663.4	641.5	613.4	581.5	545.8
45°	640.9	640.9	639.7	634.0	626.5	615.9	602.1	584.0	556.4	523.9	485.7
47.5°	563.3	563.9	562.0	560.8	557.7	550.8	540.8	527.0	507.6	476.3	438.1
50°	484.4	484.4	487.6	486.9	486.9	484.4	480.1	471.9	455.0	430.0	394.3
52.5°	405.6	406.8	408.7	411.2	414.3	419.3	414.3	410.6	399.9	380.5	349.9
55°	324.2	325.5	328.6	333.0	336.7	341.7	343.0	343.0	337.4	324.2	301.1
57.5°	254.7	252.9	255.4	259.1	264.1	269.1	272.9	277.3	276.6	267.9	249.1
60°	191.5	192.2	194.0	197.8	201.5	205.9	210.9	214.7	216.6	212.2	200.3
62.5°	139.6	139.6	142.1	145.8	147.7	154.0	157.1	159.0	160.8	160.2	152.7
65°	97.6	98.9	100.1	102.0	103.9	107.6	109.5	113.3	114.5	115.2	109.5
67.5°	68.9	67.0	68.2	69.5	71.4	73.9	77.6	77.6	79.5	79.5	75.7
70°	43.8	43.8	44.4	46.3	47.6	48.2	49.5	50.7	52.6	51.9	51.9
72.5°	29.4	28.8	29.4	30.0	30.7	32.5	32.5	33.2	34.4	35.1	32.5
75°	15.0	15.7	16.9	16.3	18.1	16.9	17.5	19.4	18.8	17.5	17.5
77.5°	12.5	12.5	12.5	11.9	13.1	13.1	12.5	13.8	13.1	13.1	12.5
80°	8.8	9.4	8.8	8.1	8.8	8.1	8.1	8.1	8.1	8.1	7.5
82.5°	6.9	5.6	6.3	5.6	6.3	6.3	5.6	5.0	5.0	5.6	5.0
85°	5.0	3.8	4.4	4.4	3.8	3.8	3.8	3.8	3.8	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°	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0
2.5°	1167.9	1167.3	1168.6	1167.9	1167.9	1167.3	1167.9	1167.3	1168.6	1166.0	1166.7
5°	1167.9	1166.7	1167.3	1167.9	1168.6	1167.3	1167.3	1167.3	1168.6	1167.3	1167.9
7.5°	1165.4	1164.8	1166.7	1167.9	1167.3	1166.7	1167.9	1167.3	1168.6	1167.9	1169.2
10°	1160.4	1161.0	1162.3	1164.2	1164.8	1165.4	1166.7	1166.7	1168.6	1166.0	1167.3
12.5°	1152.9	1155.4	1158.5	1159.8	1162.3	1162.3	1163.5	1164.2	1165.4	1164.8	1166.7
15°	1143.5	1146.6	1150.4	1153.5	1156.7	1158.5	1160.4	1161.0	1162.9	1161.0	1161.7
17.5°	1132.2	1136.0	1141.6	1145.4	1150.4	1152.3	1154.8	1156.0	1157.9	1156.7	1157.3
20°	1116.6	1121.0	1127.2	1132.9	1136.0	1140.4	1143.5	1145.4	1146.6	1145.4	1146.0
22.5°	1094.7	1101.0	1109.1	1113.5	1119.7	1123.5	1124.1	1128.5	1131.6	1128.5	1129.7
25°	1069.0	1075.3	1081.5	1090.9	1096.6	1101.0	1105.3	1106.0	1109.1	1108.5	1107.8
27.5°	1026.5	1034.6	1045.2	1052.8	1060.3	1067.2	1072.2	1073.4	1076.5	1075.3	1075.9
30°	968.3	977.0	987.0	998.9	1009.6	1016.4	1022.7	1027.1	1030.2	1028.3	1027.7
32.5°	885.6	894.4	905.0	916.9	929.5	939.5	947.0	952.6	956.4	955.1	952.0
35°	791.1	793.6	800.5	809.9	820.5	831.2	838.1	844.3	848.7	850.0	850.0
37.5°	694.1	686.0	681.0	681.0	687.2	691.6	697.9	701.6	708.5	711.0	712.9
40°	600.2	581.5	563.9	550.8	542.0	541.4	541.4	543.3	549.5	557.7	565.2
42.5°	516.4	486.3	459.4	435.0	417.5	407.5	403.1	403.7	408.7	416.2	428.7
45°	449.4	411.8	378.0	348.6	324.8	309.2	301.7	301.1	304.8	313.6	327.3
47.5°	397.4	357.4	319.2	285.4	259.8	242.8	234.1	231.6	234.1	242.2	258.5
50°	354.3	313.0	273.5	238.5	210.9	193.4	185.3	182.1	185.3	192.2	208.4
52.5°	314.2	271.6	234.7	200.9	171.5	156.5	147.7	145.8	147.7	155.8	169.0
55°	267.9	231.6	195.3	161.5	135.8	120.8	113.9	112.0	113.9	121.4	135.2
57.5°	222.2	190.9	159.0	128.3	106.4	93.3	87.0	84.5	88.9	93.9	110.2
60°	179.6	154.6	127.7	100.8	82.6	70.7	65.7	65.1	66.3	72.6	83.9
62.5°	140.8	120.2	98.9	77.0	62.0	57.0	50.7	50.1	51.3	55.1	63.8
65°	101.4	88.3	72.0	56.3	44.4	37.6	35.1	35.7	36.9	39.4	47.6
67.5°	70.7	61.3	50.1	39.4	30.7	27.5	25.0	24.4	25.0	29.4	33.8
70°	47.6	41.9	33.8	30.0	21.3	16.9	17.5	15.7	18.1	18.1	21.9
72.5°	31.3	27.5	22.5	17.5	15.0	11.9	11.9	11.3	12.5	13.1	16.3
75°	16.3	12.5	12.5	8.8	6.3	3.1	5.6	5.0	4.4	5.0	6.3
77.5°	11.3	9.4	8.8	6.9	6.3	5.0	5.0	5.0	5.0	5.6	6.3
80°	6.9	6.9	5.0	4.4	3.8	3.1	3.8	3.8	3.8	3.8	4.4
82.5°	4.4	3.8	3.8	3.1	3.1	2.5	2.5	2.5	2.5	2.5	3.8
85°	3.8	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°	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0	1166.0
2.5°	1167.9	1168.6	1168.6	1167.9	1167.9	1166.7	1169.2	1167.3	1167.9	1170.4	1168.6
5°	1169.2	1169.8	1169.8	1169.2	1169.2	1169.2	1169.8	1169.8	1169.2	1168.6	1169.8
7.5°	1171.7	1171.0	1171.0	1169.8	1169.8	1168.6	1169.8	1167.9	1169.2	1167.9	1169.8
10°	1168.6	1169.2	1168.6	1167.9	1167.9	1167.3	1167.3	1165.4	1166.0	1164.2	1165.4
12.5°	1166.7	1166.0	1166.0	1164.8	1163.5	1162.3	1161.7	1159.8	1159.8	1155.4	1157.3
15°	1161.7	1162.3	1160.4	1157.9	1156.7	1153.5	1152.3	1149.8	1147.3	1144.1	1144.8
17.5°	1157.3	1155.4	1152.9	1150.4	1145.4	1142.9	1140.4	1136.6	1135.4	1131.6	1130.4
20°	1144.1	1142.9	1139.8	1135.4	1132.2	1126.6	1124.1	1120.4	1117.2	1113.5	1111.6
22.5°	1127.2	1126.0	1122.2	1117.8	1112.8	1110.3	1107.8	1101.0	1097.8	1094.1	1093.4
25°	1106.0	1104.1	1100.3	1095.3	1092.8	1085.9	1083.4	1078.4	1077.2	1073.4	1072.8
27.5°	1073.4	1070.9	1066.5	1060.3	1055.9	1051.5	1049.0	1045.2	1044.0	1040.2	1039.6
30°	1024.6	1021.5	1012.7	1010.2	1002.7	998.3	998.3	993.3	993.9	991.4	991.4
32.5°	947.6	942.6	935.7	930.7	925.7	923.2	923.2	921.3	922.6	922.6	923.8
35°	845.6	838.7	834.9	831.8	831.8	834.3	841.8	843.7	847.5	850.6	853.1
37.5°	714.8	714.2	718.5	722.3	731.7	742.3	755.5	766.7	777.4	784.9	792.4
40°	573.3	589.0	601.5	619.0	633.4	654.1	677.8	697.2	715.4	728.5	742.3
42.5°	447.5	467.5	493.8	519.5	545.2	573.3	604.6	631.5	655.3	673.5	687.9
45°	348.6	376.2	408.1	440.6	473.8	508.9	541.4	568.9	594.0	612.8	627.1
47.5°	281.0	311.1	347.4	383.0	420.6	457.5	493.8	517.6	538.3	553.3	566.4
50°	232.2	264.1	302.3	343.0	380.5	417.5	448.8	471.9	488.8	502.0	510.1
52.5°	194.0	227.8	268.5	309.2	346.7	380.5	408.7	426.2	440.0	449.4	456.9
55°	160.2	192.8	231.0	269.1	306.1	338.0	361.1	374.3	384.9	390.6	394.9
57.5°	130.8	160.8	195.9	231.0	262.9	289.2	307.3	320.5	325.5	329.8	329.2
60°	102.7	130.8	162.7	192.8	220.3	241.6	254.7	262.2	266.0	267.9	266.6
62.5°	80.7	106.4	130.8	157.1	177.1	195.3	207.8	207.8	209.7	210.3	212.2
65°	60.1	79.5	100.8	120.2	136.4	148.3	155.2	157.1	159.6	159.0	157.7
67.5°	44.4	58.8	74.5	88.9	100.1	107.6	112.7	117.0	116.4	115.2	114.5
70°	30.7	40.1	53.8	62.6	70.7	78.2	79.5	80.1	80.7	81.4	80.1
72.5°	21.3	28.2	35.7	43.2	48.2	51.3	54.5	55.1	55.1	55.1	54.5
75°	10.6	14.4	21.3	24.4	28.8	30.0	32.5	32.5	34.4	31.9	31.3
77.5°	9.4	11.3	15.0	17.5	19.4	21.3	21.9	23.8	23.2	21.9	22.5
80°	5.6	6.9	9.4	10.6	13.1	13.8	14.4	15.0	14.4	15.0	15.0
82.5°	4.4	5.0	6.3	6.3	8.1	8.1	8.8	8.8	9.4	9.4	9.4
85°	2.5	4.4	3.8	7.5	5.0	5.0	6.3	7.5	6.3	6.3	7.5
87.5°	2.5	2.5	1.9	2.5	2.5	2.5	3.1	3.8	3.8	4.4	3.8
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: P244610

CATALOG NUMBER: LSR8B20D010 EC8B20840 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1166.0	1166.0	1166.0	1166.0
2.5°	1167.9	1169.2	1167.3	1166.7
5°	1169.8	1169.8	1168.6	1168.6
7.5°	1169.8	1169.8	1167.9	1166.7
10°	1164.8	1164.8	1162.9	1161.7
12.5°	1155.4	1155.4	1154.8	1152.9
15°	1143.5	1143.5	1141.0	1139.1
17.5°	1127.2	1128.5	1125.4	1125.4
20°	1109.7	1109.1	1106.6	1105.3
22.5°	1091.6	1090.3	1089.7	1085.9
25°	1072.2	1070.9	1069.0	1067.2
27.5°	1039.0	1038.4	1036.5	1034.0
30°	988.3	987.7	985.2	985.2
32.5°	922.6	921.9	919.4	920.1
35°	854.3	856.9	855.6	853.1
37.5°	797.4	799.3	800.5	799.3
40°	749.8	755.5	756.1	757.3
42.5°	699.1	706.6	709.1	710.4
45°	638.4	645.3	650.9	649.7
47.5°	576.4	581.5	586.5	582.7
50°	517.0	520.1	522.0	522.0
52.5°	460.7	460.7	460.0	460.7
55°	396.2	396.2	393.7	394.9
57.5°	328.6	329.8	328.0	324.8
60°	266.0	262.9	261.6	259.8
62.5°	207.2	207.2	202.8	208.4
65°	155.2	153.3	151.5	150.8
67.5°	112.7	112.0	110.2	109.5
70°	79.5	77.0	76.4	75.1
72.5°	53.2	53.2	51.9	51.9
75°	32.5	29.4	28.8	29.4
77.5°	22.5	21.9	21.9	21.3
80°	15.0	14.4	15.7	13.8
82.5°	9.4	10.0	9.4	10.0
85°	6.3	7.5	6.9	6.9
87.5°	3.8	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)