

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: P244208

Luminaire Tested: **LSR8B20D010 EC8B20940 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244208
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B20D010 EC8B20940 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2053.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

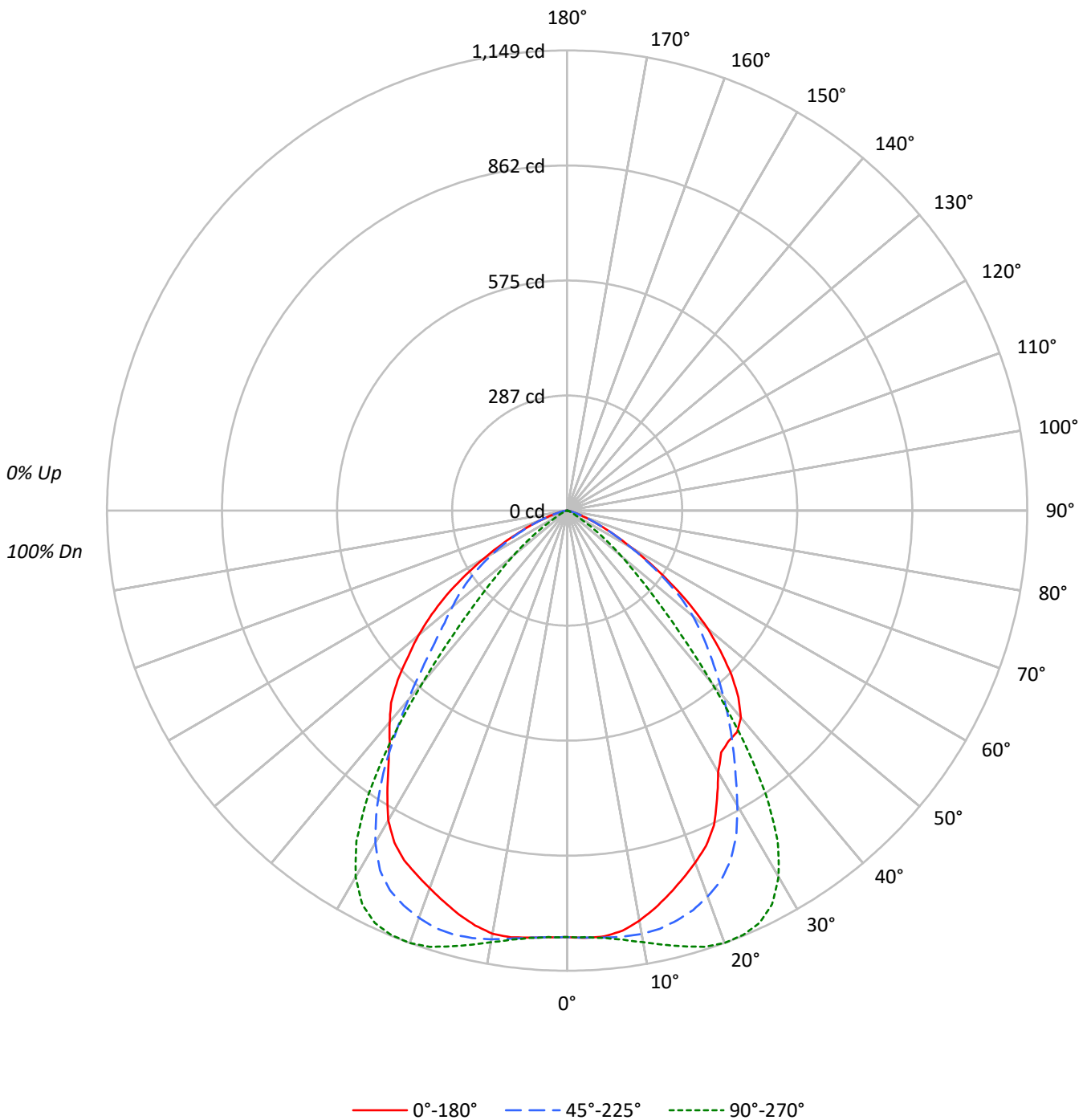
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	90					90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45					45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41					41			
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38					38			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	32841	32841	32841
5°	33037	33158	33124
10°	32552	34268	33595
15°	31598	35966	33332
20°	30682	37695	32927
25°	29506	38662	32775
30°	26851	37601	31804
35°	26453	32581	29261
40°	27171	22595	27739
45°	25293	13658	26083
50°	21938	8434	23243
55°	16838	4408	19725
60°	11471	1776	14888
65°	7136	905	10273
70°	3877	559	6266
75°	2025	274	3705
80°	906	302	2007
85°	601	212	1804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	5.0
10°-20°	303.4	14.8
20°-30°	462.9	22.5
30°-40°	483.0	23.5
40°-50°	362.8	17.7
50°-60°	223.2	10.9
60°-70°	90.8	4.4
70°-80°	21.4	1.0
80°-90°	3.0	0.1
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°	868.7	42.3
0°-40°	1351.7	65.8
0°-60°	1937.8	94.4
0°-90°	2053.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2053.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1065	1065	1065	1065	1065	
5°	1067	1070	1071	1070	1070	101
15°	990	1059	1127	1096	1044	279
25°	867	964	1136	1046	963	394
35°	703	722	866	800	777	444
45°	580	502	313	468	598	443
55°	313	297	82	297	367	282
65°	98	99	12	133	141	102
75°	17	17	2	30	31	20
85°	2	2	1	4	5	2
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°	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0
2.5°	1067.9	1066.2	1067.9	1067.9	1068.4	1067.3	1067.9	1068.4	1067.3	1067.3	1067.3
5°	1067.3	1066.2	1067.3	1066.7	1067.9	1067.9	1069.0	1069.0	1070.1	1070.1	1071.8
7.5°	1058.2	1056.0	1058.2	1059.9	1061.1	1063.3	1066.2	1068.4	1070.7	1072.9	1075.8
10°	1039.6	1039.6	1041.3	1044.7	1048.1	1052.0	1057.1	1062.8	1068.4	1073.5	1078.6
12.5°	1016.4	1014.7	1018.1	1022.6	1027.7	1033.9	1041.9	1050.3	1059.4	1069.5	1077.5
15°	989.8	988.1	992.1	996.6	1002.8	1011.9	1021.5	1032.8	1045.8	1059.4	1072.4
17.5°	962.7	962.1	966.1	972.3	977.4	987.0	999.5	1013.0	1027.7	1045.8	1062.8
20°	935.0	934.4	938.4	943.5	950.3	959.3	971.8	987.6	1005.1	1025.5	1045.2
22.5°	906.2	906.7	910.1	915.8	921.4	931.0	944.0	959.9	979.1	1001.1	1023.2
25°	867.2	864.3	868.9	874.5	884.1	892.0	904.5	921.4	941.2	964.4	990.4
27.5°	810.6	810.1	814.0	819.1	827.6	837.2	850.8	868.3	889.2	914.7	940.1
30°	754.1	755.2	756.9	762.0	767.7	777.3	790.9	805.6	825.3	849.6	876.8
32.5°	715.7	715.7	717.9	721.3	725.3	730.4	740.0	750.7	766.0	782.9	802.7
35°	702.7	700.4	702.7	703.2	703.8	704.9	706.6	710.0	715.1	722.5	729.8
37.5°	697.0	695.3	695.3	693.1	690.2	686.8	682.3	677.2	671.6	664.2	658.6
40°	675.0	673.8	672.7	670.5	664.2	657.4	650.1	638.2	625.2	607.1	589.1
42.5°	632.6	631.4	630.9	626.4	620.7	612.8	604.3	591.9	575.5	552.3	526.3
45°	580.0	577.7	576.0	572.1	568.1	561.3	553.4	542.1	525.7	502.0	470.9
47.5°	518.9	517.8	517.2	515.6	511.6	507.6	502.6	493.5	478.8	456.2	424.0
50°	457.3	455.1	456.2	455.6	453.9	451.1	447.7	441.5	430.2	409.8	380.4
52.5°	386.7	386.7	386.1	387.8	388.4	387.8	388.4	381.6	372.0	356.7	331.8
55°	313.2	313.2	314.9	317.1	319.4	320.0	319.4	316.6	309.8	297.3	275.3
57.5°	244.2	243.1	246.5	249.9	252.1	254.4	252.7	250.4	246.5	236.3	219.3
60°	186.0	186.0	188.2	190.5	192.8	195.0	194.5	193.9	190.5	183.7	170.2
62.5°	136.8	137.4	137.4	139.1	141.3	143.6	145.3	143.6	141.9	137.4	128.3
65°	97.8	97.2	97.8	99.5	101.2	103.4	104.6	104.0	102.3	98.9	92.1
67.5°	65.6	65.0	67.3	67.8	69.0	71.2	70.7	71.2	70.7	67.8	62.2
70°	43.0	41.8	43.0	42.4	44.1	44.7	45.8	46.4	45.8	44.1	42.4
72.5°	26.6	26.0	26.6	27.1	27.7	28.3	29.4	29.4	28.8	27.7	25.4
75°	17.0	15.3	15.8	14.7	15.8	15.8	17.0	17.5	17.0	17.0	15.8
77.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.7	11.3	10.2	9.6
80°	5.1	5.1	5.7	5.7	5.7	6.2	5.7	5.7	5.7	6.2	4.5
82.5°	4.0	3.4	3.4	3.4	4.0	3.4	3.4	3.4	3.4	3.4	3.4
85°	1.7	2.3	1.7	1.1	1.7	1.7	2.3	1.7	1.7	1.7	2.3
87.5°	0.6	0.6	0.0	0.0	0.0	0.6	0.0	0.6	0.6	1.1	0.0
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°	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0
2.5°	1067.9	1066.7	1066.7	1066.2	1067.3	1066.2	1066.7	1066.2	1066.2	1067.3	1066.2
5°	1071.8	1072.4	1071.2	1070.7	1072.4	1072.4	1072.4	1071.2	1071.2	1071.8	1071.2
7.5°	1077.5	1078.6	1079.2	1079.7	1080.9	1081.4	1081.4	1080.9	1080.3	1082.0	1079.7
10°	1083.7	1085.4	1088.8	1090.5	1093.3	1093.3	1094.4	1094.4	1093.3	1094.4	1093.9
12.5°	1081.4	1091.6	1097.3	1101.2	1105.2	1108.6	1109.7	1110.3	1109.7	1112.0	1109.7
15°	1085.4	1093.9	1102.9	1109.7	1117.0	1121.0	1122.1	1126.6	1127.8	1128.3	1125.0
17.5°	1079.2	1094.4	1104.0	1114.2	1125.0	1132.3	1139.1	1141.9	1142.5	1143.6	1139.1
20°	1065.0	1082.0	1096.7	1111.4	1123.8	1135.1	1140.8	1148.7	1146.4	1151.0	1144.7
22.5°	1045.8	1065.0	1083.7	1102.9	1115.9	1129.5	1141.3	1147.0	1149.8	1149.8	1143.0
25°	1015.3	1037.9	1058.2	1078.0	1097.8	1114.2	1127.8	1136.3	1138.0	1137.4	1129.5
27.5°	967.8	992.1	1015.9	1038.5	1062.8	1082.0	1097.8	1108.0	1110.8	1110.8	1102.3
30°	902.2	928.2	951.4	978.5	1003.4	1024.9	1046.9	1056.0	1061.1	1061.1	1051.5
32.5°	824.2	846.3	867.7	894.3	921.4	945.8	966.7	979.1	985.3	984.8	976.3
35°	739.4	750.2	766.6	786.3	810.6	833.3	853.6	865.5	876.2	875.6	867.7
37.5°	654.6	651.8	653.5	660.8	676.1	691.9	707.8	719.1	728.1	732.1	730.4
40°	571.5	556.8	542.7	537.6	538.7	544.4	552.9	561.3	571.5	576.6	578.9
42.5°	496.9	472.0	447.1	428.5	417.8	414.4	418.3	421.1	427.4	434.7	442.1
45°	437.0	403.6	370.8	342.0	323.9	313.2	310.9	313.2	316.6	323.9	333.5
47.5°	387.8	348.8	312.1	279.8	253.3	239.1	235.2	234.0	237.4	244.2	257.2
50°	344.3	305.3	264.6	227.2	199.6	183.7	178.1	175.8	179.8	184.9	196.7
52.5°	296.8	258.3	216.5	180.3	151.5	135.1	128.9	125.5	127.8	134.5	146.4
55°	245.3	209.7	171.8	134.5	106.8	91.6	84.2	82.0	84.2	91.6	103.4
57.5°	193.9	163.9	132.3	97.2	72.4	57.1	49.7	47.5	53.7	56.5	69.0
60°	151.5	127.2	100.1	71.2	49.7	37.9	30.5	28.8	31.7	36.7	46.9
62.5°	113.6	98.4	76.9	50.9	36.7	24.3	20.3	18.7	20.3	24.3	32.2
65°	82.5	70.7	53.7	37.3	24.9	18.1	13.6	12.4	14.1	17.0	23.7
67.5°	56.5	47.5	37.3	26.0	17.0	11.3	9.6	9.6	10.2	12.4	17.5
70°	36.7	31.1	23.7	17.0	11.3	8.5	7.3	6.2	7.3	9.0	11.9
72.5°	23.2	19.8	15.3	11.9	8.5	6.2	5.1	4.5	5.7	6.8	9.0
75°	14.1	10.7	7.9	6.2	4.5	4.5	4.5	2.3	2.8	4.5	5.7
77.5°	8.5	7.3	6.2	5.1	4.0	2.3	2.3	2.3	2.8	3.4	5.1
80°	4.5	4.0	2.8	2.8	2.3	1.7	2.3	1.7	1.1	2.8	3.4
82.5°	2.8	2.3	2.3	2.3	2.8	1.1	1.7	1.1	1.7	2.3	1.7
85°	1.7	1.7	1.7	1.1	2.8	1.1	1.1	0.6	0.6	1.1	1.1
87.5°	0.0	0.6	0.6	0.0	0.6	0.0	0.6	0.6	0.6	0.6	0.6
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°	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0	1065.0
2.5°	1066.7	1066.2	1066.7	1066.2	1066.2	1066.2	1066.7	1066.7	1066.2	1066.2	1067.3
5°	1071.2	1071.2	1071.2	1070.7	1070.1	1070.1	1071.2	1071.2	1069.5	1071.2	1071.2
7.5°	1080.9	1079.2	1080.9	1078.6	1077.5	1078.0	1078.6	1077.5	1076.3	1076.9	1076.9
10°	1093.3	1091.6	1091.6	1089.9	1088.2	1087.1	1086.0	1083.1	1080.3	1079.7	1077.5
12.5°	1108.0	1105.2	1103.5	1100.1	1097.3	1093.3	1089.9	1085.4	1079.7	1075.8	1071.8
15°	1122.7	1118.2	1114.2	1108.6	1102.3	1095.6	1088.2	1080.9	1071.8	1063.9	1057.1
17.5°	1134.6	1128.3	1121.0	1112.0	1102.9	1092.7	1082.0	1071.2	1058.2	1048.1	1040.2
20°	1138.5	1129.5	1119.9	1108.0	1096.1	1082.0	1068.4	1054.3	1039.6	1028.9	1019.8
22.5°	1133.4	1122.7	1110.8	1098.4	1082.5	1067.3	1051.5	1035.1	1022.1	1007.4	998.9
25°	1119.3	1106.3	1093.3	1078.6	1063.3	1046.4	1029.4	1012.5	996.6	988.7	978.0
27.5°	1090.5	1076.3	1062.2	1046.9	1029.4	1012.5	994.9	978.5	965.0	954.2	948.0
30°	1039.6	1023.2	1006.8	990.4	975.1	957.6	941.2	927.7	914.1	905.6	899.4
32.5°	961.6	946.9	930.5	914.7	900.5	885.8	872.3	860.4	850.8	845.1	840.6
35°	856.4	841.7	829.3	818.0	806.1	799.9	791.4	784.6	780.7	778.4	777.9
37.5°	724.1	715.7	711.7	709.5	707.2	705.5	706.6	709.5	711.7	715.7	720.2
40°	582.8	590.2	592.4	600.4	607.7	617.3	628.1	640.5	650.7	663.7	672.7
42.5°	453.9	467.5	483.3	500.3	518.4	535.9	557.4	577.2	595.3	611.7	625.8
45°	348.8	369.7	393.5	417.8	442.1	467.5	493.5	517.8	539.3	556.8	571.5
47.5°	271.9	295.1	325.6	355.6	385.0	414.9	443.8	469.2	487.3	504.2	517.2
50°	215.4	241.9	275.3	309.8	342.0	373.7	404.2	427.9	446.0	459.6	469.2
52.5°	166.8	198.4	232.3	268.5	303.0	337.5	365.7	387.8	402.5	414.4	421.7
55°	124.4	155.5	191.6	228.9	264.0	297.3	323.9	343.1	356.1	362.9	366.9
57.5°	89.9	118.2	154.3	191.6	223.3	255.0	276.4	294.0	301.3	305.3	307.0
60°	65.6	91.6	123.8	156.0	186.0	211.4	230.1	241.9	247.6	249.9	249.3
62.5°	48.1	70.7	98.4	125.5	149.8	170.7	185.4	193.3	196.2	197.3	195.6
65°	36.7	54.3	78.0	98.9	117.6	132.8	143.6	148.7	150.4	149.8	148.7
67.5°	27.1	40.7	58.2	74.1	87.6	99.5	105.2	109.7	110.8	109.1	107.4
70°	19.2	30.0	42.4	53.1	63.3	70.1	76.3	76.9	76.9	76.3	75.2
72.5°	13.6	20.9	28.8	36.2	42.4	47.5	49.7	51.4	50.9	50.3	49.2
75°	9.0	13.0	20.9	22.6	28.3	30.0	32.2	32.2	32.8	31.1	31.1
77.5°	5.7	9.0	12.4	14.7	17.0	19.2	20.3	20.3	20.9	20.3	20.3
80°	3.4	5.7	6.8	10.2	10.2	11.9	12.4	13.0	11.9	13.6	11.9
82.5°	2.3	3.4	5.1	5.1	6.2	7.3	7.3	7.9	7.9	7.3	7.3
85°	1.7	2.3	2.8	3.4	3.4	4.0	3.4	3.4	4.0	4.5	4.0
87.5°	0.6	1.1	0.6	1.1	1.1	2.3	1.7	1.7	1.7	2.3	2.3
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: P244208

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1065.0	1065.0	1065.0	1065.0
2.5°	1066.2	1066.7	1066.2	1066.2
5°	1071.2	1070.7	1071.2	1070.1
7.5°	1075.2	1075.2	1074.6	1074.6
10°	1075.2	1072.9	1072.9	1072.9
12.5°	1066.7	1063.9	1062.2	1061.1
15°	1052.0	1046.9	1044.7	1044.1
17.5°	1032.8	1028.3	1025.5	1023.8
20°	1010.8	1006.2	1002.8	1003.4
22.5°	991.5	986.5	984.2	983.1
25°	972.3	966.1	964.4	963.3
27.5°	941.2	937.8	936.1	934.4
30°	893.7	892.0	889.2	893.2
32.5°	838.9	836.1	833.8	835.5
35°	778.4	776.7	778.4	777.3
37.5°	723.0	724.7	727.0	728.1
40°	679.5	685.7	688.0	689.1
42.5°	636.0	643.3	647.8	650.7
45°	582.3	589.6	594.7	598.1
47.5°	526.9	533.1	538.2	537.6
50°	476.6	479.9	482.2	484.5
52.5°	425.7	425.7	426.2	426.2
55°	368.0	366.9	366.3	366.9
57.5°	304.7	303.6	303.0	301.3
60°	247.0	243.7	241.4	241.4
62.5°	193.3	189.4	187.7	187.1
65°	145.3	144.7	141.3	140.8
67.5°	105.2	102.9	100.6	101.2
70°	74.1	70.7	70.7	69.5
72.5°	48.1	46.4	45.8	45.8
75°	30.0	30.0	28.8	31.1
77.5°	19.8	19.8	19.2	19.8
80°	11.9	11.9	11.9	11.3
82.5°	7.3	7.9	7.3	7.3
85°	4.0	4.5	3.4	5.1
87.5°	2.3	2.8	2.3	2.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)