

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: P244640

Luminaire Tested: **LSR8B20D010 EC8B20940 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P244640
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 EC8B20940 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1981.0 lumens
Efficiency: N/A
Efficacy: 93.0 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

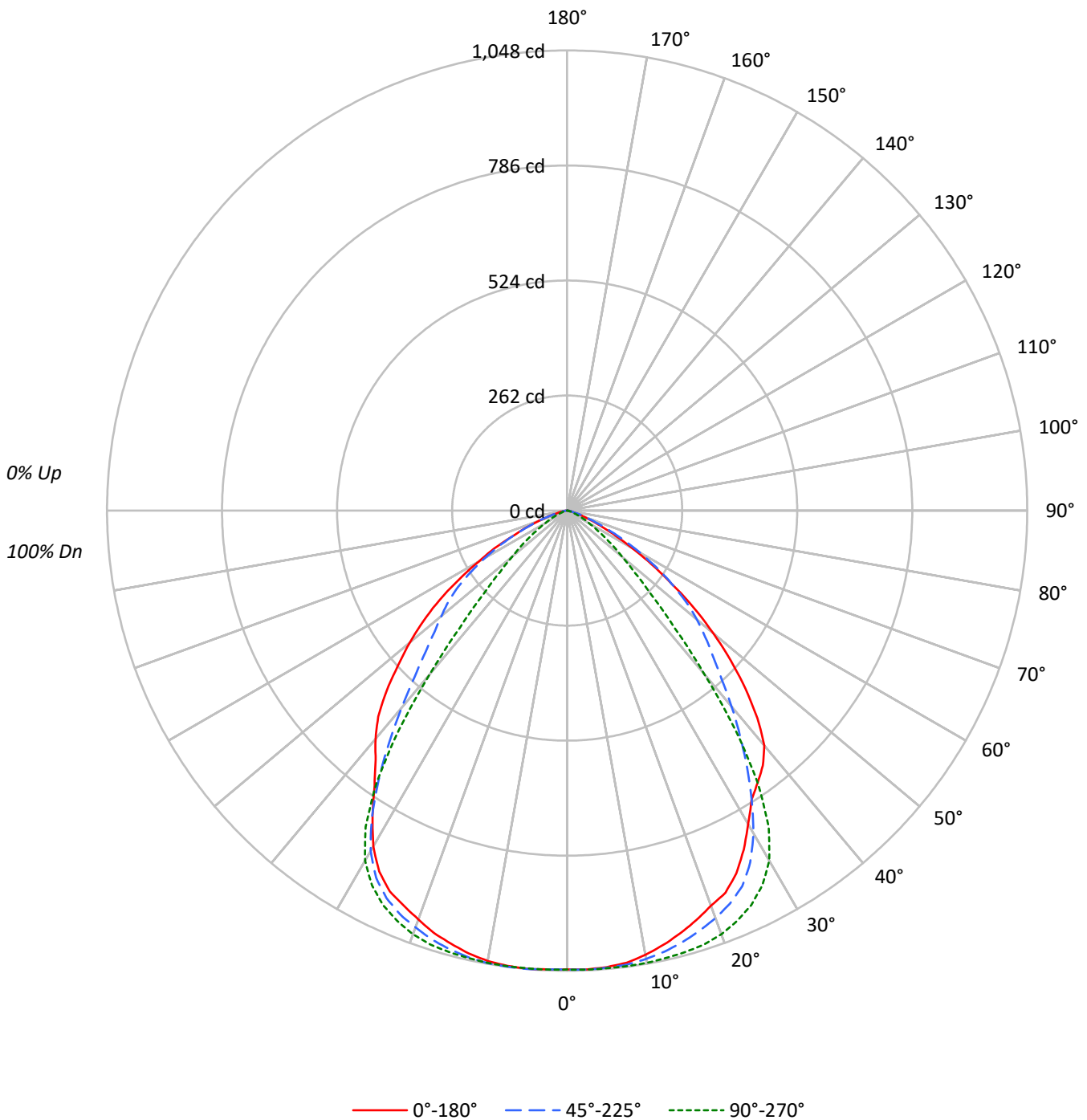
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P244640

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0H

Luminous Intensity Polar Plot





TEST NUMBER: P244640

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0H

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°	32230	32230	32230
5°	32301	32387	32424
10°	32167	32746	32605
15°	31809	33223	32598
20°	31427	33691	32513
25°	31020	33732	32547
30°	29347	32783	31444
35°	28470	28489	28787
40°	28117	19604	27328
45°	25053	11770	25398
50°	20830	7834	22446
55°	15623	5398	19032
60°	10589	3596	14357
65°	6384	2335	9865
70°	3543	1262	6068
75°	1608	536	3145
80°	1403	604	2184
85°	1592	778	2194



TEST NUMBER: P244640

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0H

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.8	5.0
10°-20°	289.7	14.6
20°-30°	439.7	22.2
30°-40°	461.8	23.3
40°-50°	346.2	17.5
50°-60°	222.2	11.2
60°-70°	95.0	4.8
70°-80°	22.5	1.1
80°-90°	4.2	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°	829.1	41.9
0°-40°	1291.0	65.2
0°-60°	1859.3	93.9
0°-90°	1981.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1981.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1045	1045	1045	1045	1045	
5°	1044	1045	1046	1048	1048	99
15°	996	1017	1041	1034	1021	281
25°	912	944	991	973	957	416
35°	756	714	757	748	765	475
45°	574	470	270	456	582	440
55°	291	291	100	303	354	264
65°	88	103	32	133	135	93
75°	14	16	4	27	26	20
85°	4	3	2	4	6	5
90°	0	0	0	0	0	



TEST NUMBER: P244640

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0H

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2
2.5°	1045.8	1046.9	1046.3	1046.3	1045.8	1046.3	1046.3	1047.5	1047.5	1046.3	1045.8
5°	1043.5	1044.7	1044.7	1043.5	1043.5	1046.3	1044.7	1045.8	1045.8	1045.2	1045.2
7.5°	1038.5	1038.5	1040.7	1039.1	1039.1	1040.7	1040.2	1041.3	1042.4	1043.0	1043.0
10°	1027.3	1028.4	1028.9	1028.9	1029.5	1031.2	1032.3	1034.6	1035.7	1036.8	1037.4
12.5°	1013.2	1014.9	1015.5	1014.9	1016.6	1018.8	1021.7	1024.5	1026.1	1028.4	1030.1
15°	996.4	996.4	997.5	999.2	1000.3	1003.7	1006.5	1009.9	1014.4	1017.2	1020.0
17.5°	977.9	979.0	980.7	980.7	982.9	988.5	990.2	995.3	1000.3	1003.1	1008.8
20°	957.7	958.8	960.5	961.6	964.4	968.9	972.3	976.8	982.4	987.4	993.0
22.5°	942.0	939.7	940.9	942.0	944.8	948.7	952.6	958.2	963.9	968.9	974.5
25°	911.7	912.2	913.9	915.0	918.4	921.8	926.3	933.0	938.1	943.7	949.8
27.5°	870.7	871.3	874.1	874.1	876.9	882.5	885.3	890.9	897.7	903.3	910.6
30°	824.2	825.3	825.3	827.5	829.2	832.0	834.8	840.4	843.8	848.9	859.0
32.5°	781.5	782.6	782.1	781.5	779.8	779.3	778.7	779.8	781.0	782.6	786.6
35°	756.3	753.5	751.2	747.3	742.8	737.2	732.2	725.4	719.3	714.2	708.6
37.5°	732.2	731.6	728.2	722.6	713.6	703.5	691.8	677.2	662.6	646.9	631.7
40°	698.5	696.8	694.0	686.2	676.0	663.7	648.0	630.0	606.5	582.4	557.7
42.5°	641.3	641.8	638.5	632.3	622.8	611.0	594.7	575.1	549.8	521.2	489.2
45°	574.5	574.5	573.4	568.3	561.6	552.1	539.7	523.5	498.8	469.6	435.4
47.5°	504.9	505.5	503.8	502.7	499.9	493.7	484.7	472.4	455.0	426.9	392.7
50°	434.2	434.2	437.0	436.5	436.5	434.2	430.3	423.0	407.9	385.4	353.5
52.5°	363.6	364.7	366.4	368.6	371.4	375.9	371.4	368.0	358.5	341.1	313.6
55°	290.6	291.7	294.5	298.5	301.8	306.3	307.4	307.4	302.4	290.6	269.9
57.5°	228.3	226.7	228.9	232.3	236.8	241.3	244.6	248.5	248.0	240.1	223.3
60°	171.7	172.2	173.9	177.3	180.7	184.6	189.1	192.4	194.1	190.2	179.5
62.5°	125.1	125.1	127.4	130.7	132.4	138.0	140.8	142.5	144.2	143.6	136.9
65°	87.5	88.6	89.8	91.5	93.1	96.5	98.2	101.5	102.7	103.2	98.2
67.5°	61.7	60.0	61.2	62.3	64.0	66.2	69.6	69.6	71.2	71.2	67.9
70°	39.3	39.3	39.8	41.5	42.6	43.2	44.3	45.4	47.1	46.6	46.6
72.5°	26.4	25.8	26.4	26.9	27.5	29.2	29.2	29.7	30.9	31.4	29.2
75°	13.5	14.0	15.1	14.6	16.3	15.1	15.7	17.4	16.8	15.7	15.7
77.5°	11.2	11.2	11.2	10.7	11.8	11.8	11.2	12.3	11.8	11.8	11.2
80°	7.9	8.4	7.9	7.3	7.9	7.3	7.3	7.3	7.3	7.3	6.7
82.5°	6.2	5.1	5.6	5.1	5.6	5.6	5.1	4.5	4.5	5.1	4.5
85°	4.5	3.4	3.9	3.9	3.4	3.4	3.4	3.4	3.4	2.8	2.8
87.5°	2.8	1.7	1.7	1.7	2.2	2.2	2.2	1.7	2.2	2.2	1.1
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: P244640

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0H

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2
2.5°	1046.9	1046.3	1047.5	1046.9	1046.9	1046.3	1046.9	1046.3	1047.5	1045.2	1045.8
5°	1046.9	1045.8	1046.3	1046.9	1047.5	1046.3	1046.3	1046.3	1047.5	1046.3	1046.9
7.5°	1044.7	1044.1	1045.8	1046.9	1046.3	1045.8	1046.9	1046.3	1047.5	1046.9	1048.0
10°	1040.2	1040.7	1041.9	1043.5	1044.1	1044.7	1045.8	1045.8	1047.5	1045.2	1046.3
12.5°	1033.4	1035.7	1038.5	1039.6	1041.9	1041.9	1043.0	1043.5	1044.7	1044.1	1045.8
15°	1025.0	1027.8	1031.2	1034.0	1036.8	1038.5	1040.2	1040.7	1042.4	1040.7	1041.3
17.5°	1014.9	1018.3	1023.3	1026.7	1031.2	1032.9	1035.1	1036.2	1037.9	1036.8	1037.4
20°	1000.9	1004.8	1010.4	1015.5	1018.3	1022.2	1025.0	1026.7	1027.8	1026.7	1027.3
22.5°	981.3	986.9	994.2	998.1	1003.7	1007.1	1007.6	1011.6	1014.4	1011.6	1012.7
25°	958.2	963.9	969.5	977.9	982.9	986.9	990.8	991.4	994.2	993.6	993.0
27.5°	920.1	927.4	936.9	943.7	950.4	956.6	961.1	962.2	965.0	963.9	964.4
30°	867.9	875.8	884.8	895.4	905.0	911.1	916.7	920.7	923.5	921.8	921.2
32.5°	793.9	801.7	811.3	821.9	833.1	842.1	848.9	853.9	857.3	856.1	853.3
35°	709.2	711.4	717.6	726.0	735.5	745.1	751.2	756.8	760.8	761.9	761.9
37.5°	622.2	614.9	610.4	610.4	616.0	619.9	625.6	628.9	635.1	637.3	639.0
40°	538.0	521.2	505.5	493.7	485.9	485.3	485.3	487.0	492.6	499.9	506.6
42.5°	462.9	435.9	411.8	389.9	374.2	365.2	361.3	361.9	366.4	373.1	384.3
45°	402.8	369.2	338.9	312.5	291.2	277.1	270.4	269.9	273.2	281.1	293.4
47.5°	356.3	320.4	286.1	255.8	232.8	217.7	209.8	207.6	209.8	217.1	231.7
50°	317.5	280.5	245.2	213.8	189.1	173.4	166.1	163.3	166.1	172.2	186.8
52.5°	281.6	243.5	210.4	180.1	153.7	140.3	132.4	130.7	132.4	139.7	151.5
55°	240.1	207.6	175.0	144.7	121.8	108.3	102.1	100.4	102.1	108.8	121.2
57.5°	199.2	171.1	142.5	115.0	95.4	83.6	78.0	75.7	79.7	84.2	98.7
60°	161.0	138.6	114.4	90.3	74.1	63.4	58.9	58.3	59.5	65.1	75.2
62.5°	126.2	107.7	88.6	69.0	55.5	51.1	45.4	44.9	46.0	49.4	57.2
65°	90.9	79.1	64.5	50.5	39.8	33.7	31.4	32.0	33.1	35.3	42.6
67.5°	63.4	55.0	44.9	35.3	27.5	24.7	22.4	21.9	22.4	26.4	30.3
70°	42.6	37.6	30.3	26.9	19.1	15.1	15.7	14.0	16.3	16.3	19.6
72.5°	28.0	24.7	20.2	15.7	13.5	10.7	10.7	10.1	11.2	11.8	14.6
75°	14.6	11.2	11.2	7.9	5.6	2.8	5.1	4.5	3.9	4.5	5.6
77.5°	10.1	8.4	7.9	6.2	5.6	4.5	4.5	4.5	4.5	5.1	5.6
80°	6.2	6.2	4.5	3.9	3.4	2.8	3.4	3.4	3.4	3.4	3.9
82.5°	3.9	3.4	3.4	2.8	2.8	2.2	2.2	2.2	2.2	2.2	3.4
85°	3.4	2.2	2.2	1.7	2.2	3.9	1.7	2.2	2.2	2.2	1.7
87.5°	1.1	1.7	1.7	1.7	1.1	0.6	1.1	1.7	1.7	2.8	2.2
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: P244640

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0H

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2	1045.2
2.5°	1046.9	1047.5	1047.5	1046.9	1046.9	1045.8	1048.0	1046.3	1046.9	1049.1	1047.5
5°	1048.0	1048.6	1048.6	1048.0	1048.0	1048.0	1048.6	1048.6	1048.0	1047.5	1048.6
7.5°	1050.3	1049.7	1049.7	1048.6	1048.6	1047.5	1048.6	1046.9	1048.0	1046.9	1048.6
10°	1047.5	1048.0	1047.5	1046.9	1046.9	1046.3	1046.3	1044.7	1045.2	1043.5	1044.7
12.5°	1045.8	1045.2	1045.2	1044.1	1043.0	1041.9	1041.3	1039.6	1039.6	1035.7	1037.4
15°	1041.3	1041.9	1040.2	1037.9	1036.8	1034.0	1032.9	1030.6	1028.4	1025.6	1026.1
17.5°	1037.4	1035.7	1033.4	1031.2	1026.7	1024.5	1022.2	1018.8	1017.7	1014.4	1013.2
20°	1025.6	1024.5	1021.7	1017.7	1014.9	1009.9	1007.6	1004.3	1001.5	998.1	996.4
22.5°	1010.4	1009.3	1005.9	1002.0	997.5	995.3	993.0	986.9	984.1	980.7	980.1
25°	991.4	989.7	986.3	981.8	979.6	973.4	971.2	966.7	965.6	962.2	961.6
27.5°	962.2	959.9	956.0	950.4	946.5	942.5	940.3	936.9	935.8	932.4	931.9
30°	918.4	915.6	907.8	905.5	898.8	894.9	894.9	890.4	890.9	888.7	888.7
32.5°	849.4	844.9	838.7	834.3	829.8	827.5	827.5	825.8	827.0	827.0	828.1
35°	758.0	751.8	748.4	745.6	745.6	747.9	754.6	756.3	759.7	762.5	764.7
37.5°	640.7	640.2	644.1	647.4	655.9	665.4	677.2	687.3	696.8	703.5	710.3
40°	513.9	527.9	539.2	554.9	567.8	586.3	607.6	625.0	641.3	653.1	665.4
42.5°	401.1	419.1	442.7	465.7	488.7	513.9	542.0	566.1	587.4	603.7	616.6
45°	312.5	337.2	365.8	395.0	424.7	456.1	485.3	510.0	532.4	549.3	562.2
47.5°	251.9	278.8	311.4	343.4	377.0	410.1	442.7	464.0	482.5	496.0	507.7
50°	208.1	236.8	271.0	307.4	341.1	374.2	402.3	423.0	438.2	450.0	457.2
52.5°	173.9	204.2	240.7	277.1	310.8	341.1	366.4	382.1	394.4	402.8	409.6
55°	143.6	172.8	207.0	241.3	274.3	303.0	323.7	335.5	345.0	350.1	354.0
57.5°	117.3	144.2	175.6	207.0	235.6	259.2	275.5	287.3	291.7	295.7	295.1
60°	92.0	117.3	145.9	172.8	197.5	216.6	228.3	235.1	238.4	240.1	239.0
62.5°	72.4	95.4	117.3	140.8	158.8	175.0	186.3	186.3	187.9	188.5	190.2
65°	53.9	71.2	90.3	107.7	122.3	133.0	139.1	140.8	143.1	142.5	141.4
67.5°	39.8	52.7	66.8	79.7	89.8	96.5	101.0	104.9	104.4	103.2	102.7
70°	27.5	35.9	48.3	56.1	63.4	70.1	71.2	71.8	72.4	72.9	71.8
72.5°	19.1	25.2	32.0	38.7	43.2	46.0	48.8	49.4	49.4	49.4	48.8
75°	9.5	12.9	19.1	21.9	25.8	26.9	29.2	29.2	30.9	28.6	28.0
77.5°	8.4	10.1	13.5	15.7	17.4	19.1	19.6	21.3	20.8	19.6	20.2
80°	5.1	6.2	8.4	9.5	11.8	12.3	12.9	13.5	12.9	13.5	13.5
82.5°	3.9	4.5	5.6	5.6	7.3	7.3	7.9	7.9	8.4	8.4	8.4
85°	2.2	3.9	3.4	6.7	4.5	4.5	5.6	6.7	5.6	5.6	6.7
87.5°	2.2	2.2	1.7	2.2	2.2	2.2	2.8	3.4	3.4	3.9	3.4
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: P244640

CATALOG NUMBER: LSR8B20D010 EC8B20940 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1045.2	1045.2	1045.2	1045.2
2.5°	1046.9	1048.0	1046.3	1045.8
5°	1048.6	1048.6	1047.5	1047.5
7.5°	1048.6	1048.6	1046.9	1045.8
10°	1044.1	1044.1	1042.4	1041.3
12.5°	1035.7	1035.7	1035.1	1033.4
15°	1025.0	1025.0	1022.8	1021.1
17.5°	1010.4	1011.6	1008.8	1008.8
20°	994.7	994.2	991.9	990.8
22.5°	978.5	977.3	976.8	973.4
25°	961.1	959.9	958.2	956.6
27.5°	931.3	930.8	929.1	926.8
30°	885.9	885.3	883.1	883.1
32.5°	827.0	826.4	824.2	824.7
35°	765.8	768.1	766.9	764.7
37.5°	714.8	716.4	717.6	716.4
40°	672.1	677.2	677.7	678.9
42.5°	626.7	633.4	635.7	636.8
45°	572.3	578.4	583.5	582.4
47.5°	516.7	521.2	525.7	522.3
50°	463.4	466.2	467.9	467.9
52.5°	412.9	412.9	412.4	412.9
55°	355.1	355.1	352.9	354.0
57.5°	294.5	295.7	294.0	291.2
60°	238.4	235.6	234.5	232.8
62.5°	185.7	185.7	181.8	186.8
65°	139.1	137.5	135.8	135.2
67.5°	101.0	100.4	98.7	98.2
70°	71.2	69.0	68.4	67.3
72.5°	47.7	47.7	46.6	46.6
75°	29.2	26.4	25.8	26.4
77.5°	20.2	19.6	19.6	19.1
80°	13.5	12.9	14.0	12.3
82.5°	8.4	9.0	8.4	9.0
85°	5.6	6.7	6.2	6.2
87.5°	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)