

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: P246074

Luminaire Tested: **LSR8B20D010 EC8B20935 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246074
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 EC8B20935 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1854.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

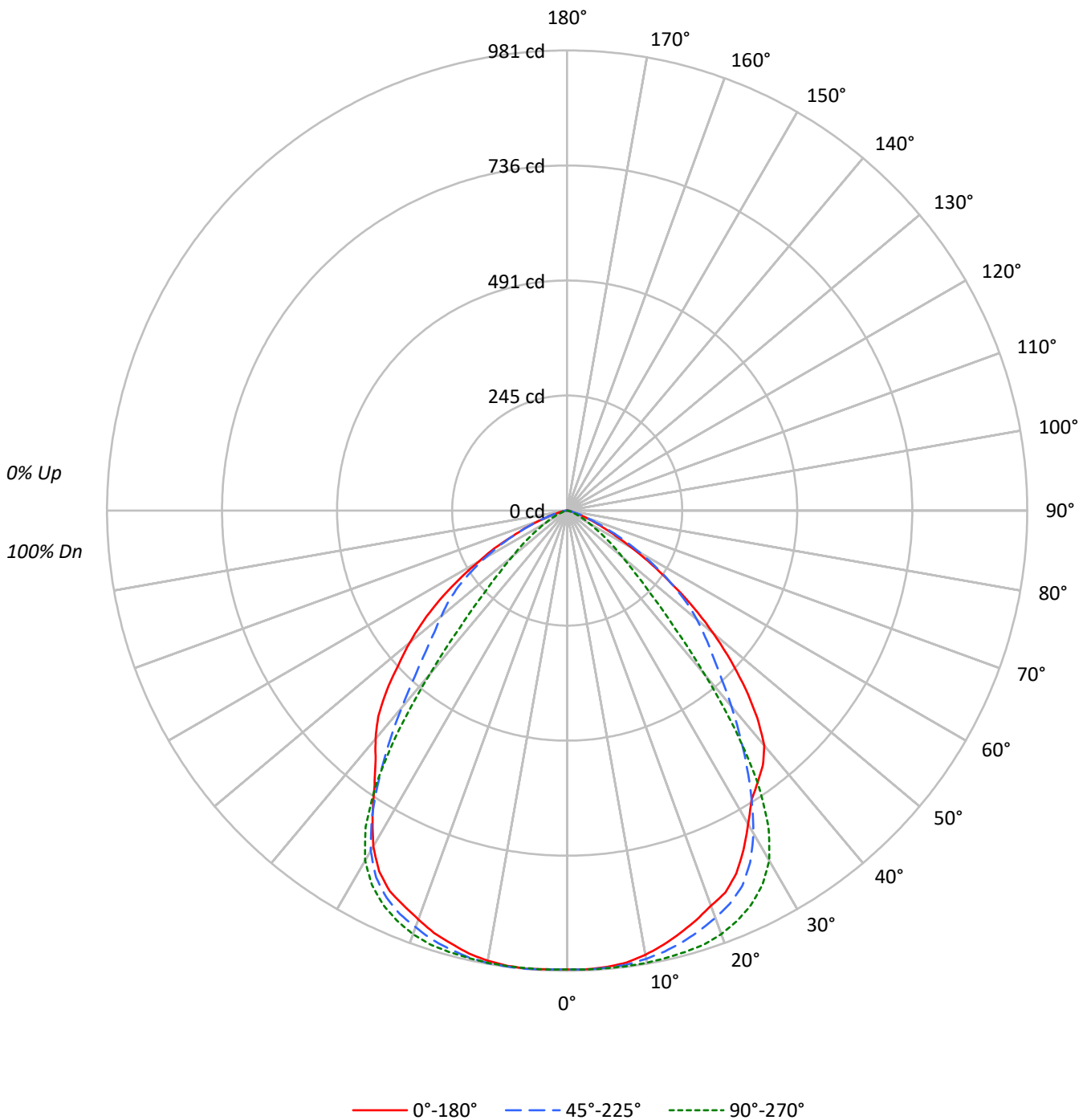
Input Watts (W): 21.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	30164	30164	30164
5°	30230	30313	30344
10°	30103	30645	30514
15°	29769	31094	30507
20°	29412	31532	30430
25°	29029	31568	30458
30°	27463	30679	29429
35°	26645	26663	26942
40°	26314	18348	25573
45°	23449	11016	23767
50°	19496	7330	21007
55°	14623	5054	17811
60°	9911	3367	13438
65°	5976	2182	9230
70°	3318	1181	5680
75°	1501	500	2943
80°	1296	550	2060
85°	1486	743	2052



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	5.0
10°-20°	271.1	14.6
20°-30°	411.5	22.2
30°-40°	432.2	23.3
40°-50°	324.0	17.5
50°-60°	207.9	11.2
60°-70°	88.9	4.8
70°-80°	21.0	1.1
80°-90°	3.9	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°	776.0	41.9
0°-40°	1208.2	65.2
0°-60°	1740.1	93.9
0°-90°	1854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1854.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	978	978	978	978	978	
5°	977	978	979	981	980	93
15°	932	952	974	968	956	263
25°	853	883	928	911	895	390
35°	708	668	708	700	716	444
45°	538	440	253	427	545	412
55°	272	272	94	284	331	247
65°	82	97	30	124	126	87
75°	13	15	4	25	25	18
85°	4	3	2	4	6	4
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°	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2
2.5°	978.7	979.8	979.3	979.3	978.7	979.3	979.3	980.3	980.3	979.3	978.7
5°	976.6	977.7	977.7	976.6	976.6	979.3	977.7	978.7	978.7	978.2	978.2
7.5°	971.9	971.9	974.0	972.4	972.4	974.0	973.5	974.5	975.6	976.1	976.1
10°	961.4	962.5	963.0	963.0	963.5	965.1	966.1	968.2	969.3	970.3	970.9
12.5°	948.3	949.9	950.4	949.9	951.4	953.5	956.2	958.8	960.4	962.5	964.0
15°	932.5	932.5	933.6	935.2	936.2	939.4	942.0	945.1	949.3	952.0	954.6
17.5°	915.2	916.3	917.8	917.8	919.9	925.2	926.8	931.5	936.2	938.8	944.1
20°	896.3	897.3	898.9	900.0	902.6	906.8	909.9	914.1	919.4	924.1	929.4
22.5°	881.6	879.5	880.5	881.6	884.2	887.9	891.6	896.8	902.1	906.8	912.1
25°	853.2	853.8	855.3	856.4	859.5	862.7	866.9	873.2	877.9	883.2	888.9
27.5°	814.9	815.4	818.1	818.1	820.7	825.9	828.6	833.8	840.1	845.4	852.2
30°	771.3	772.4	772.4	774.5	776.0	778.7	781.3	786.6	789.7	794.4	803.9
32.5°	731.4	732.5	731.9	731.4	729.8	729.3	728.8	729.8	730.9	732.5	736.1
35°	707.8	705.2	703.1	699.4	695.2	689.9	685.2	678.9	673.1	668.4	663.2
37.5°	685.2	684.7	681.5	676.3	667.9	658.4	647.4	633.8	620.1	605.4	591.2
40°	653.7	652.1	649.5	642.2	632.7	621.2	606.5	589.7	567.6	545.0	521.9
42.5°	600.2	600.7	597.5	591.7	582.8	571.8	556.6	538.2	514.6	487.8	457.9
45°	537.7	537.7	536.6	531.9	525.6	516.7	505.1	489.9	466.8	439.5	407.5
47.5°	472.6	473.1	471.5	470.5	467.8	462.1	453.7	442.1	425.8	399.6	367.5
50°	406.4	406.4	409.0	408.5	408.5	406.4	402.7	395.9	381.7	360.7	330.8
52.5°	340.2	341.3	342.9	345.0	347.6	351.8	347.6	344.4	335.5	319.2	293.5
55°	272.0	273.0	275.7	279.3	282.5	286.7	287.7	287.7	283.0	272.0	252.6
57.5°	213.7	212.1	214.2	217.4	221.6	225.8	228.9	232.6	232.1	224.7	209.0
60°	160.7	161.2	162.8	165.9	169.1	172.7	177.0	180.1	181.7	178.0	168.0
62.5°	117.1	117.1	119.2	122.3	123.9	129.2	131.8	133.4	134.9	134.4	128.1
65°	81.9	83.0	84.0	85.6	87.2	90.3	91.9	95.0	96.1	96.6	91.9
67.5°	57.8	56.2	57.2	58.3	59.9	62.0	65.1	65.1	66.7	66.7	63.5
70°	36.8	36.8	37.3	38.9	39.9	40.4	41.5	42.5	44.1	43.6	43.6
72.5°	24.7	24.2	24.7	25.2	25.7	27.3	27.3	27.8	28.9	29.4	27.3
75°	12.6	13.1	14.2	13.7	15.2	14.2	14.7	16.3	15.8	14.7	14.7
77.5°	10.5	10.5	10.5	10.0	11.0	11.0	10.5	11.6	11.0	11.0	10.5
80°	7.3	7.9	7.3	6.8	7.3	6.8	6.8	6.8	6.8	6.8	6.3
82.5°	5.8	4.7	5.3	4.7	5.3	5.3	4.7	4.2	4.2	4.7	4.2
85°	4.2	3.1	3.7	3.7	3.1	3.1	3.1	3.1	3.1	2.6	2.6
87.5°	2.6	1.6	1.6	1.6	2.1	2.1	2.1	1.6	2.1	2.1	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2
2.5°	979.8	979.3	980.3	979.8	979.8	979.3	979.8	979.3	980.3	978.2	978.7
5°	979.8	978.7	979.3	979.8	980.3	979.3	979.3	979.3	980.3	979.3	979.8
7.5°	977.7	977.2	978.7	979.8	979.3	978.7	979.8	979.3	980.3	979.8	980.8
10°	973.5	974.0	975.1	976.6	977.2	977.7	978.7	978.7	980.3	978.2	979.3
12.5°	967.2	969.3	971.9	973.0	975.1	975.1	976.1	976.6	977.7	977.2	978.7
15°	959.3	961.9	965.1	967.7	970.3	971.9	973.5	974.0	975.6	974.0	974.5
17.5°	949.9	953.0	957.7	960.9	965.1	966.7	968.8	969.8	971.4	970.3	970.9
20°	936.7	940.4	945.7	950.4	953.0	956.7	959.3	960.9	961.9	960.9	961.4
22.5°	918.3	923.6	930.4	934.1	939.4	942.5	943.0	946.7	949.3	946.7	947.8
25°	896.8	902.1	907.3	915.2	919.9	923.6	927.3	927.8	930.4	929.9	929.4
27.5°	861.1	867.9	876.9	883.2	889.5	895.2	899.5	900.5	903.1	902.1	902.6
30°	812.3	819.6	828.0	838.0	846.9	852.7	858.0	861.6	864.3	862.7	862.2
32.5°	743.0	750.3	759.3	769.2	779.7	788.1	794.4	799.2	802.3	801.3	798.6
35°	663.7	665.8	671.6	679.4	688.4	697.3	703.1	708.3	712.0	713.0	713.0
37.5°	582.3	575.5	571.3	571.3	576.5	580.2	585.5	588.6	594.4	596.5	598.1
40°	503.5	487.8	473.1	462.1	454.7	454.2	454.2	455.8	461.0	467.8	474.1
42.5°	433.2	408.0	385.4	364.9	350.2	341.8	338.1	338.7	342.9	349.2	359.7
45°	377.0	345.5	317.1	292.5	272.5	259.4	253.1	252.6	255.7	263.1	274.6
47.5°	333.4	299.8	267.8	239.4	217.9	203.7	196.4	194.3	196.4	203.2	216.9
50°	297.2	262.5	229.5	200.1	177.0	162.3	155.4	152.8	155.4	161.2	174.8
52.5°	263.6	227.9	196.9	168.5	143.9	131.3	123.9	122.3	123.9	130.7	141.8
55°	224.7	194.3	163.8	135.5	113.9	101.3	95.6	94.0	95.6	101.9	113.4
57.5°	186.4	160.1	133.4	107.6	89.3	78.2	73.0	70.9	74.6	78.8	92.4
60°	150.7	129.7	107.1	84.5	69.3	59.3	55.1	54.6	55.7	60.9	70.4
62.5°	118.1	100.8	83.0	64.6	52.0	47.8	42.5	42.0	43.1	46.2	53.6
65°	85.1	74.0	60.4	47.3	37.3	31.5	29.4	29.9	31.0	33.1	39.9
67.5°	59.3	51.5	42.0	33.1	25.7	23.1	21.0	20.5	21.0	24.7	28.4
70°	39.9	35.2	28.4	25.2	17.9	14.2	14.7	13.1	15.2	15.2	18.4
72.5°	26.2	23.1	18.9	14.7	12.6	10.0	10.0	9.5	10.5	11.0	13.7
75°	13.7	10.5	10.5	7.3	5.3	2.6	4.7	4.2	3.7	4.2	5.3
77.5°	9.5	7.9	7.3	5.8	5.3	4.2	4.2	4.2	4.2	4.7	5.3
80°	5.8	5.8	4.2	3.7	3.1	2.6	3.1	3.1	3.1	3.1	3.7
82.5°	3.7	3.1	3.1	2.6	2.6	2.1	2.1	2.1	2.1	2.1	3.1
85°	3.1	2.1	2.1	1.6	2.1	3.7	1.6	2.1	2.1	2.1	1.6
87.5°	1.1	1.6	1.6	1.6	1.1	0.5	1.1	1.6	1.6	2.6	2.1
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°	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2	978.2
2.5°	979.8	980.3	980.3	979.8	979.8	978.7	980.8	979.3	979.8	981.9	980.3
5°	980.8	981.4	981.4	980.8	980.8	980.8	981.4	981.4	980.8	980.3	981.4
7.5°	982.9	982.4	982.4	981.4	981.4	980.3	981.4	979.8	980.8	979.8	981.4
10°	980.3	980.8	980.3	979.8	979.8	979.3	979.3	977.7	978.2	976.6	977.7
12.5°	978.7	978.2	978.2	977.2	976.1	975.1	974.5	973.0	973.0	969.3	970.9
15°	974.5	975.1	973.5	971.4	970.3	967.7	966.7	964.6	962.5	959.8	960.4
17.5°	970.9	969.3	967.2	965.1	960.9	958.8	956.7	953.5	952.5	949.3	948.3
20°	959.8	958.8	956.2	952.5	949.9	945.1	943.0	939.9	937.2	934.1	932.5
22.5°	945.7	944.6	941.4	937.8	933.6	931.5	929.4	923.6	921.0	917.8	917.3
25°	927.8	926.2	923.1	918.9	916.8	911.0	908.9	904.7	903.7	900.5	900.0
27.5°	900.5	898.4	894.7	889.5	885.8	882.1	880.0	876.9	875.8	872.7	872.1
30°	859.5	856.9	849.6	847.5	841.2	837.5	837.5	833.3	833.8	831.7	831.7
32.5°	795.0	790.8	785.0	780.8	776.6	774.5	774.5	772.9	774.0	774.0	775.0
35°	709.4	703.6	700.4	697.8	697.8	699.9	706.2	707.8	710.9	713.6	715.7
37.5°	599.6	599.1	602.8	605.9	613.8	622.7	633.8	643.2	652.1	658.4	664.7
40°	481.0	494.1	504.6	519.3	531.4	548.7	568.6	584.9	600.2	611.2	622.7
42.5°	375.4	392.2	414.3	435.8	457.3	481.0	507.2	529.8	549.8	565.0	577.1
45°	292.5	315.6	342.4	369.7	397.5	426.9	454.2	477.3	498.3	514.0	526.1
47.5°	235.8	261.0	291.4	321.3	352.8	383.8	414.3	434.2	451.6	464.2	475.2
50°	194.8	221.6	253.6	287.7	319.2	350.2	376.5	395.9	410.1	421.1	427.9
52.5°	162.8	191.1	225.3	259.4	290.9	319.2	342.9	357.6	369.1	377.0	383.3
55°	134.4	161.7	193.8	225.8	256.8	283.5	303.0	314.0	322.9	327.6	331.3
57.5°	109.7	134.9	164.3	193.8	220.5	242.6	257.8	268.8	273.0	276.7	276.2
60°	86.1	109.7	136.5	161.7	184.8	202.7	213.7	220.0	223.2	224.7	223.7
62.5°	67.7	89.3	109.7	131.8	148.6	163.8	174.3	174.3	175.9	176.4	178.0
65°	50.4	66.7	84.5	100.8	114.5	124.4	130.2	131.8	133.9	133.4	132.3
67.5°	37.3	49.4	62.5	74.6	84.0	90.3	94.5	98.2	97.7	96.6	96.1
70°	25.7	33.6	45.2	52.5	59.3	65.6	66.7	67.2	67.7	68.3	67.2
72.5°	17.9	23.6	29.9	36.2	40.4	43.1	45.7	46.2	46.2	46.2	45.7
75°	8.9	12.1	17.9	20.5	24.2	25.2	27.3	27.3	28.9	26.8	26.2
77.5°	7.9	9.5	12.6	14.7	16.3	17.9	18.4	20.0	19.4	18.4	18.9
80°	4.7	5.8	7.9	8.9	11.0	11.6	12.1	12.6	12.1	12.6	12.6
82.5°	3.7	4.2	5.3	5.3	6.8	6.8	7.3	7.3	7.9	7.9	7.9
85°	2.1	3.7	3.1	6.3	4.2	4.2	5.3	6.3	5.3	5.3	6.3
87.5°	2.1	2.1	1.6	2.1	2.1	2.1	2.6	3.1	3.1	3.7	3.1
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: P246074

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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	978.2	978.2	978.2	978.2
2.5°	979.8	980.8	979.3	978.7
5°	981.4	981.4	980.3	980.3
7.5°	981.4	981.4	979.8	978.7
10°	977.2	977.2	975.6	974.5
12.5°	969.3	969.3	968.8	967.2
15°	959.3	959.3	957.2	955.6
17.5°	945.7	946.7	944.1	944.1
20°	931.0	930.4	928.3	927.3
22.5°	915.7	914.7	914.1	911.0
25°	899.5	898.4	896.8	895.2
27.5°	871.6	871.1	869.5	867.4
30°	829.1	828.6	826.5	826.5
32.5°	774.0	773.4	771.3	771.9
35°	716.7	718.8	717.8	715.7
37.5°	668.9	670.5	671.6	670.5
40°	629.0	633.8	634.3	635.3
42.5°	586.5	592.8	594.9	596.0
45°	535.6	541.3	546.1	545.0
47.5°	483.6	487.8	492.0	488.8
50°	433.7	436.3	437.9	437.9
52.5°	386.5	386.5	385.9	386.5
55°	332.4	332.4	330.3	331.3
57.5°	275.7	276.7	275.1	272.5
60°	223.2	220.5	219.5	217.9
62.5°	173.8	173.8	170.1	174.8
65°	130.2	128.6	127.1	126.5
67.5°	94.5	94.0	92.4	91.9
70°	66.7	64.6	64.1	63.0
72.5°	44.6	44.6	43.6	43.6
75°	27.3	24.7	24.2	24.7
77.5°	18.9	18.4	18.4	17.9
80°	12.6	12.1	13.1	11.6
82.5°	7.9	8.4	7.9	8.4
85°	5.3	6.3	5.8	5.8
87.5°	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0

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