

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: P246158

Luminaire Tested: **LSR8B20D010 EC8B20950 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246158  
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 EC8B20950 8LBDW0B  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 5000 CCT WITH SPECULAR BLACK TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1815.0 lumens  
Efficiency: N/A  
Efficacy: 85.2 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

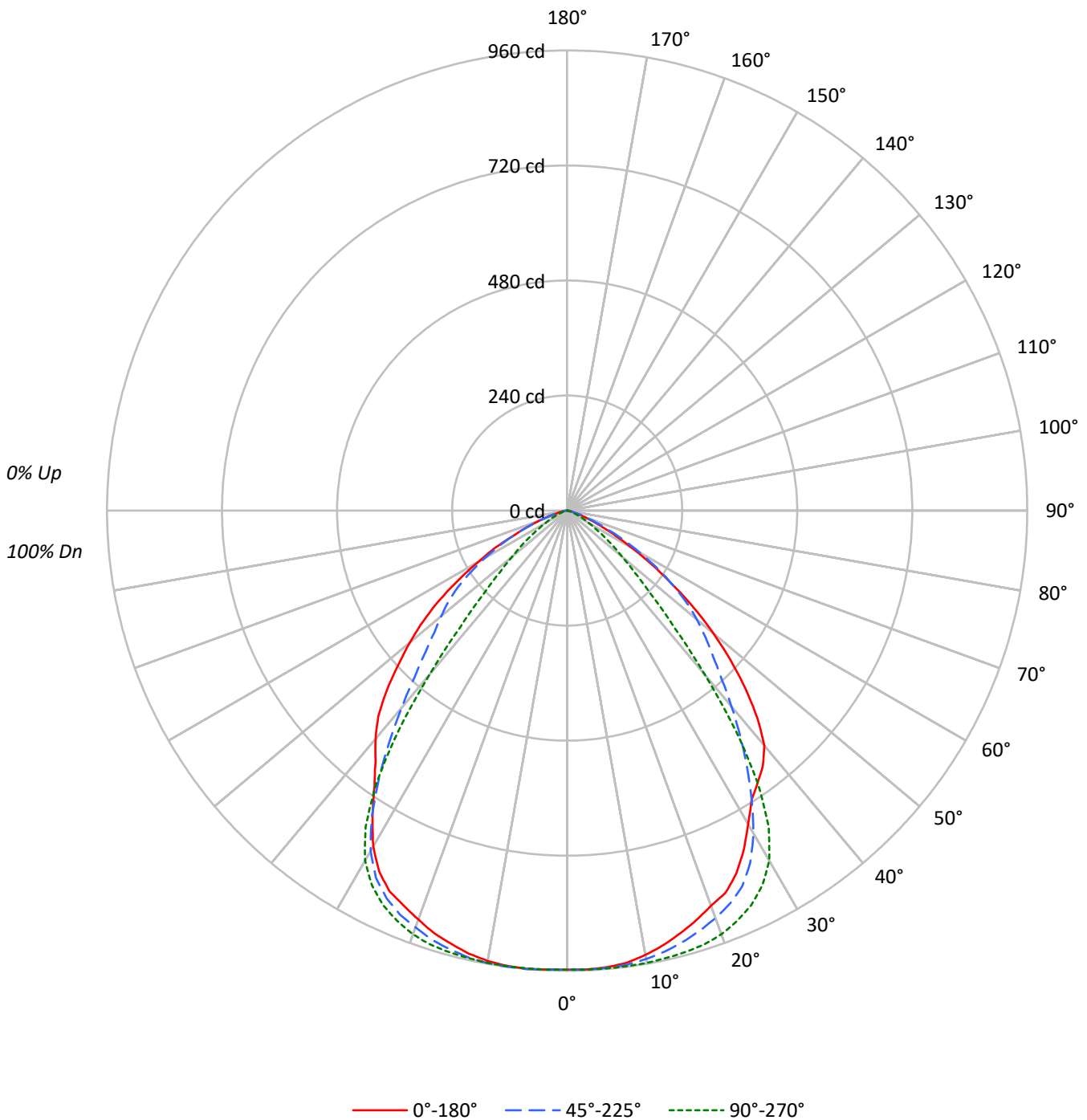
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	29529	29529	29529
5°	29595	29676	29707
10°	29471	30000	29872
15°	29144	30440	29865
20°	28792	30869	29790
25°	28420	30904	29819
30°	26887	30034	28809
35°	26084	26102	26374
40°	25763	17961	25038
45°	22956	10780	23270
50°	19088	7177	20566
55°	14317	4946	17435
60°	9701	3299	13155
65°	5852	2138	9040
70°	3246	1163	5563
75°	1465	488	2883
80°	1279	550	2007
85°	1451	743	2017



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	5.0
10°-20°	265.4	14.6
20°-30°	402.9	22.2
30°-40°	423.1	23.3
40°-50°	317.2	17.5
50°-60°	203.5	11.2
60°-70°	87.1	4.8
70°-80°	20.6	1.1
80°-90°	3.8	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°	759.7	41.9
0°-40°	1182.8	65.2
0°-60°	1703.5	93.9
0°-90°	1815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1815.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	958	958	958	958	958	
5°	956	958	959	960	960	91
15°	913	932	954	947	936	257
25°	835	865	908	892	876	382
35°	693	654	693	685	701	435
45°	526	430	247	418	534	403
55°	266	266	92	278	324	242
65°	80	95	29	122	124	86
75°	12	14	4	25	24	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°	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6
2.5°	958.1	959.2	958.7	958.7	958.1	958.7	958.7	959.7	959.7	958.7	958.1
5°	956.1	957.1	957.1	956.1	956.1	958.7	957.1	958.1	958.1	957.6	957.6
7.5°	951.5	951.5	953.5	952.0	952.0	953.5	953.0	954.0	955.1	955.6	955.6
10°	941.2	942.2	942.7	942.7	943.2	944.8	945.8	947.9	948.9	949.9	950.4
12.5°	928.3	929.9	930.4	929.9	931.4	933.5	936.0	938.6	940.2	942.2	943.8
15°	912.9	912.9	913.9	915.5	916.5	919.6	922.2	925.2	929.4	931.9	934.5
17.5°	896.0	897.0	898.5	898.5	900.6	905.7	907.3	911.9	916.5	919.1	924.2
20°	877.4	878.5	880.0	881.0	883.6	887.7	890.8	894.9	900.1	904.7	909.8
22.5°	863.0	861.0	862.0	863.0	865.6	869.2	872.8	878.0	883.1	887.7	892.9
25°	835.3	835.8	837.4	838.4	841.5	844.5	848.7	854.8	859.5	864.6	870.2
27.5°	797.8	798.3	800.9	800.9	803.4	808.6	811.1	816.3	822.4	827.6	834.3
30°	755.1	756.1	756.1	758.2	759.7	762.3	764.9	770.0	773.1	777.7	787.0
32.5°	716.0	717.1	716.5	716.0	714.5	714.0	713.5	714.5	715.5	717.1	720.7
35°	692.9	690.3	688.3	684.7	680.6	675.4	670.8	664.6	659.0	654.4	649.2
37.5°	670.8	670.3	667.2	662.1	653.8	644.6	633.8	620.4	607.1	592.7	578.8
40°	640.0	638.4	635.8	628.7	619.4	608.1	593.7	577.3	555.7	533.6	510.9
42.5°	587.5	588.0	585.0	579.3	570.6	559.8	544.9	526.9	503.7	477.5	448.2
45°	526.4	526.4	525.3	520.7	514.5	505.8	494.5	479.6	457.0	430.2	398.9
47.5°	462.6	463.1	461.6	460.6	458.0	452.3	444.1	432.8	416.9	391.2	359.8
50°	397.9	397.9	400.4	399.9	399.9	397.9	394.3	387.6	373.7	353.1	323.8
52.5°	333.1	334.1	335.7	337.7	340.3	344.4	340.3	337.2	328.5	312.5	287.3
55°	266.3	267.3	269.9	273.5	276.6	280.7	281.7	281.7	277.1	266.3	247.2
57.5°	209.2	207.7	209.7	212.8	216.9	221.0	224.1	227.7	227.2	220.0	204.6
60°	157.3	157.8	159.3	162.4	165.5	169.1	173.2	176.3	177.9	174.3	164.5
62.5°	114.6	114.6	116.7	119.8	121.3	126.5	129.0	130.6	132.1	131.6	125.4
65°	80.2	81.2	82.2	83.8	85.3	88.4	90.0	93.0	94.1	94.6	90.0
67.5°	56.5	55.0	56.0	57.1	58.6	60.7	63.7	63.7	65.3	65.3	62.2
70°	36.0	36.0	36.5	38.0	39.1	39.6	40.6	41.6	43.2	42.7	42.7
72.5°	24.2	23.6	24.2	24.7	25.2	26.7	26.7	27.2	28.3	28.8	26.7
75°	12.3	12.9	13.9	13.4	14.9	13.9	14.4	15.9	15.4	14.4	14.4
77.5°	10.3	10.3	10.3	9.8	10.8	10.8	10.3	11.3	10.8	10.8	10.3
80°	7.2	7.7	7.2	6.7	7.2	6.7	6.7	6.7	6.7	6.7	6.2
82.5°	5.7	4.6	5.1	4.6	5.1	5.1	4.6	4.1	4.1	4.6	4.1
85°	4.1	3.1	3.6	3.6	3.1	3.1	3.1	3.1	3.1	2.6	2.6
87.5°	2.6	1.5	1.5	1.5	2.1	2.1	2.1	1.5	2.1	2.1	1.0
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°	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6
2.5°	959.2	958.7	959.7	959.2	959.2	958.7	959.2	958.7	959.7	957.6	958.1
5°	959.2	958.1	958.7	959.2	959.7	958.7	958.7	958.7	959.7	958.7	959.2
7.5°	957.1	956.6	958.1	959.2	958.7	958.1	959.2	958.7	959.7	959.2	960.2
10°	953.0	953.5	954.5	956.1	956.6	957.1	958.1	958.1	959.7	957.6	958.7
12.5°	946.8	948.9	951.5	952.5	954.5	954.5	955.6	956.1	957.1	956.6	958.1
15°	939.1	941.7	944.8	947.4	949.9	951.5	953.0	953.5	955.1	953.5	954.0
17.5°	929.9	933.0	937.6	940.7	944.8	946.3	948.4	949.4	951.0	949.9	950.4
20°	917.0	920.6	925.8	930.4	933.0	936.6	939.1	940.7	941.7	940.7	941.2
22.5°	899.0	904.2	910.9	914.5	919.6	922.7	923.2	926.8	929.4	926.8	927.8
25°	878.0	883.1	888.2	896.0	900.6	904.2	907.8	908.3	910.9	910.3	909.8
27.5°	843.0	849.7	858.4	864.6	870.8	876.4	880.5	881.5	884.1	883.1	883.6
30°	795.2	802.4	810.6	820.4	829.1	834.8	839.9	843.5	846.1	844.5	844.0
32.5°	727.4	734.5	743.3	753.0	763.3	771.5	777.7	782.4	785.4	784.4	781.8
35°	649.7	651.8	657.4	665.2	673.9	682.6	688.3	693.4	697.0	698.0	698.0
37.5°	570.1	563.4	559.3	559.3	564.4	568.0	573.1	576.2	581.9	583.9	585.5
40°	492.9	477.5	463.1	452.3	445.2	444.6	444.6	446.2	451.3	458.0	464.2
42.5°	424.1	399.4	377.3	357.2	342.9	334.6	331.0	331.6	335.7	341.8	352.1
45°	369.1	338.2	310.5	286.3	266.8	253.9	247.8	247.2	250.3	257.5	268.8
47.5°	326.4	293.5	262.2	234.4	213.3	199.4	192.2	190.2	192.2	198.9	212.3
50°	290.9	257.0	224.6	195.8	173.2	158.8	152.1	149.6	152.1	157.8	171.2
52.5°	258.0	223.1	192.8	165.0	140.8	128.5	121.3	119.8	121.3	128.0	138.8
55°	220.0	190.2	160.4	132.6	111.5	99.2	93.6	92.0	93.6	99.7	111.0
57.5°	182.5	156.8	130.6	105.4	87.4	76.6	71.5	69.4	73.0	77.1	90.5
60°	147.5	127.0	104.9	82.8	67.9	58.1	54.0	53.5	54.5	59.6	68.9
62.5°	115.7	98.7	81.2	63.2	50.9	46.8	41.6	41.1	42.1	45.2	52.4
65°	83.3	72.5	59.1	46.3	36.5	30.8	28.8	29.3	30.3	32.4	39.1
67.5°	58.1	50.4	41.1	32.4	25.2	22.6	20.6	20.0	20.6	24.2	27.8
70°	39.1	34.4	27.8	24.7	17.5	13.9	14.4	12.9	14.9	14.9	18.0
72.5°	25.7	22.6	18.5	14.4	12.3	9.8	9.8	9.3	10.3	10.8	13.4
75°	13.4	10.3	10.3	7.2	5.1	2.6	4.6	4.1	3.6	4.1	5.1
77.5°	9.3	7.7	7.2	5.7	5.1	4.1	4.1	4.1	4.1	4.6	5.1
80°	5.7	5.7	4.1	3.6	3.1	2.6	3.1	3.1	3.1	3.1	3.6
82.5°	3.6	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	1.5	2.1	3.6	1.5	2.1	2.1	2.1	1.5
87.5°	1.0	1.5	1.5	1.5	1.0	0.5	1.0	1.5	1.5	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°	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6	957.6
2.5°	959.2	959.7	959.7	959.2	959.2	958.1	960.2	958.7	959.2	961.2	959.7
5°	960.2	960.7	960.7	960.2	960.2	960.2	960.7	960.7	960.2	959.7	960.7
7.5°	962.3	961.7	961.7	960.7	960.7	959.7	960.7	959.2	960.2	959.2	960.7
10°	959.7	960.2	959.7	959.2	959.2	958.7	958.7	957.1	957.6	956.1	957.1
12.5°	958.1	957.6	957.6	956.6	955.6	954.5	954.0	952.5	952.5	948.9	950.4
15°	954.0	954.5	953.0	951.0	949.9	947.4	946.3	944.3	942.2	939.6	940.2
17.5°	950.4	948.9	946.8	944.8	940.7	938.6	936.6	933.5	932.4	929.4	928.3
20°	939.6	938.6	936.0	932.4	929.9	925.2	923.2	920.1	917.5	914.5	912.9
22.5°	925.8	924.7	921.6	918.0	913.9	911.9	909.8	904.2	901.6	898.5	898.0
25°	908.3	906.7	903.7	899.5	897.5	891.8	889.8	885.7	884.6	881.5	881.0
27.5°	881.5	879.5	875.9	870.8	867.2	863.6	861.5	858.4	857.4	854.3	853.8
30°	841.5	838.9	831.7	829.6	823.5	819.9	819.9	815.8	816.3	814.2	814.2
32.5°	778.2	774.1	768.5	764.4	760.2	758.2	758.2	756.6	757.7	757.7	758.7
35°	694.4	688.8	685.7	683.1	683.1	685.2	691.4	692.9	696.0	698.6	700.6
37.5°	587.0	586.5	590.1	593.2	600.9	609.6	620.4	629.7	638.4	644.6	650.8
40°	470.8	483.7	494.0	508.4	520.2	537.2	556.7	572.6	587.5	598.3	609.6
42.5°	367.5	384.0	405.6	426.6	447.7	470.8	496.6	518.7	538.2	553.1	564.9
45°	286.3	308.9	335.1	361.9	389.1	417.9	444.6	467.2	487.8	503.2	515.1
47.5°	230.8	255.5	285.3	314.6	345.4	375.7	405.6	425.1	442.1	454.4	465.2
50°	190.7	216.9	248.3	281.7	312.5	342.9	368.6	387.6	401.5	412.2	418.9
52.5°	159.3	187.1	220.5	253.9	284.8	312.5	335.7	350.1	361.4	369.1	375.2
55°	131.6	158.3	189.7	221.0	251.4	277.6	296.6	307.4	316.1	320.7	324.3
57.5°	107.4	132.1	160.9	189.7	215.9	237.5	252.4	263.2	267.3	270.9	270.4
60°	84.3	107.4	133.6	158.3	180.9	198.4	209.2	215.4	218.5	220.0	219.0
62.5°	66.3	87.4	107.4	129.0	145.5	160.4	170.7	170.7	172.2	172.7	174.3
65°	49.3	65.3	82.8	98.7	112.1	121.8	127.5	129.0	131.1	130.6	129.5
67.5°	36.5	48.3	61.2	73.0	82.2	88.4	92.5	96.1	95.6	94.6	94.1
70°	25.2	32.9	44.2	51.4	58.1	64.3	65.3	65.8	66.3	66.8	65.8
72.5°	17.5	23.1	29.3	35.5	39.6	42.1	44.7	45.2	45.2	45.2	44.7
75°	8.7	11.8	17.5	20.0	23.6	24.7	26.7	26.7	28.3	26.2	25.7
77.5°	7.7	9.3	12.3	14.4	15.9	17.5	18.0	19.5	19.0	18.0	18.5
80°	4.6	5.7	7.7	8.7	10.8	11.3	11.8	12.3	11.8	12.3	12.3
82.5°	3.6	4.1	5.1	5.1	6.7	6.7	7.2	7.2	7.7	7.7	7.7
85°	2.1	3.6	3.1	6.2	4.1	4.1	5.1	6.2	5.1	5.1	6.2
87.5°	2.1	2.1	1.5	2.1	2.1	2.1	2.6	3.1	3.1	3.6	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





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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	957.6	957.6	957.6	957.6
2.5°	959.2	960.2	958.7	958.1
5°	960.7	960.7	959.7	959.7
7.5°	960.7	960.7	959.2	958.1
10°	956.6	956.6	955.1	954.0
12.5°	948.9	948.9	948.4	946.8
15°	939.1	939.1	937.1	935.5
17.5°	925.8	926.8	924.2	924.2
20°	911.4	910.9	908.8	907.8
22.5°	896.5	895.4	894.9	891.8
25°	880.5	879.5	878.0	876.4
27.5°	853.3	852.8	851.2	849.2
30°	811.6	811.1	809.1	809.1
32.5°	757.7	757.2	755.1	755.6
35°	701.6	703.7	702.7	700.6
37.5°	654.9	656.4	657.4	656.4
40°	615.8	620.4	620.9	622.0
42.5°	574.2	580.3	582.4	583.4
45°	524.3	530.0	534.6	533.6
47.5°	473.4	477.5	481.6	478.6
50°	424.6	427.2	428.7	428.7
52.5°	378.3	378.3	377.8	378.3
55°	325.4	325.4	323.3	324.3
57.5°	269.9	270.9	269.3	266.8
60°	218.5	215.9	214.9	213.3
62.5°	170.1	170.1	166.5	171.2
65°	127.5	125.9	124.4	123.9
67.5°	92.5	92.0	90.5	90.0
70°	65.3	63.2	62.7	61.7
72.5°	43.7	43.7	42.7	42.7
75°	26.7	24.2	23.6	24.2
77.5°	18.5	18.0	18.0	17.5
80°	12.3	11.8	12.9	11.3
82.5°	7.7	8.2	7.7	8.2
85°	5.1	6.2	5.7	5.7
87.5°	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0

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