

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: HALO COMMERCIAL

Report Number: P238368

Luminaire Tested: **PRS610D010-S6M12-61SWWMB-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238368
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-28)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS610D010-S6M12-61SWWMB-3000K
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 645.2 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.02 / 1.12
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

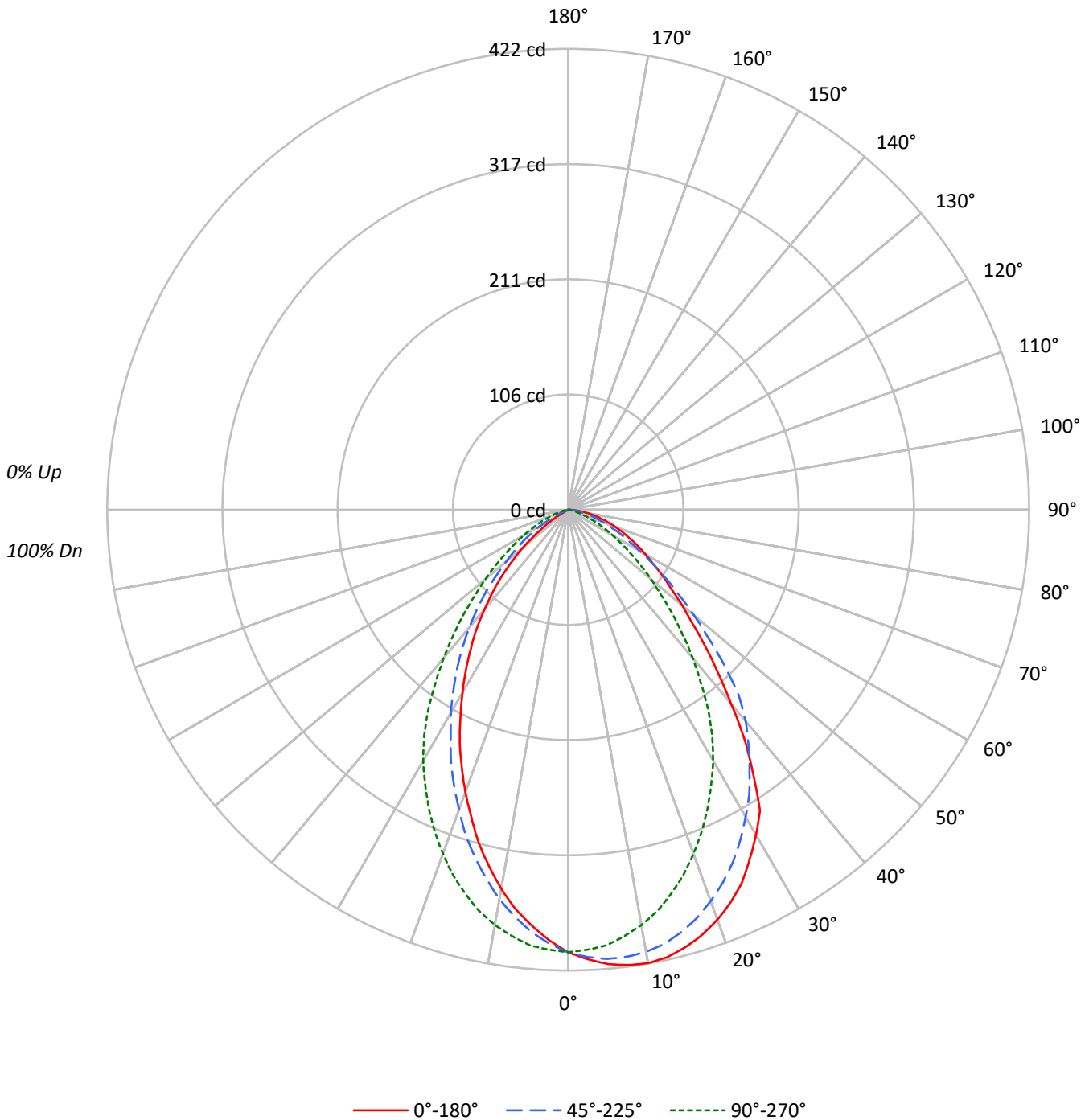
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	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	90	80	72	67	88	78	72	67	76	70	66	74	69	65	72	68	64	62
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	17450	17450	17450
5°	18053	17310	16523
10°	18432	16880	15416
15°	18490	16230	14094
20°	18305	15363	12600
25°	17886	14338	11150
30°	17097	13195	9620
35°	15511	11732	8158
40°	13034	9960	6677
45°	10851	8226	5194
50°	9110	6611	3657
55°	7912	5247	1944
60°	7009	4039	491
65°	6347	3026	0
70°	5791	2052	0
75°	5107	1281	0
80°	4513	719	0
85°	3310	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	5.9
10°-20°	102.4	15.9
20°-30°	139.5	21.6
30°-40°	142.4	22.1
40°-50°	110.1	17.1
50°-60°	66.5	10.3
60°-70°	31.9	4.9
70°-80°	12.3	1.9
80°-90°	2.5	0.4
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°	279.6	43.3
0°-40°	422.0	65.4
0°-60°	598.6	92.8
0°-90°	645.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	645.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	405	405	405	405	405	
5°	418	413	400	388	382	40
15°	415	400	364	330	316	117
25°	376	356	302	254	235	173
35°	295	289	223	177	155	183
45°	178	203	135	106	85	138
55°	105	108	70	50	26	95
65°	62	53	30	12	0	62
75°	31	22	8	0	0	33
85°	7	4	0	0	0	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3
2.5°	412.0	412.0	412.0	412.0	412.0	412.0	412.0	411.0	411.0	410.1	410.1
5°	417.7	417.7	417.7	416.8	416.8	415.8	415.8	414.8	414.8	412.9	412.9
7.5°	420.6	420.6	420.6	419.6	419.6	418.7	418.7	417.7	415.8	414.8	412.9
10°	421.6	421.6	420.6	420.6	418.7	418.7	418.7	416.8	414.8	412.9	411.0
12.5°	419.6	418.7	418.7	417.7	416.8	415.8	414.8	413.9	412.0	409.1	407.2
15°	414.8	414.8	414.8	413.9	412.0	411.0	411.0	409.1	406.2	403.3	400.5
17.5°	408.1	408.1	408.1	407.2	405.3	404.3	403.3	401.4	398.6	395.7	391.9
20°	399.5	399.5	398.6	397.6	395.7	395.7	394.7	391.9	389.0	385.1	381.3
22.5°	389.0	389.0	388.0	387.1	385.1	384.2	383.2	380.4	377.5	373.6	369.8
25°	376.5	375.6	374.6	373.6	372.7	370.8	369.8	367.9	365.0	360.2	356.4
27.5°	360.2	360.2	359.3	358.3	357.4	356.4	355.4	352.6	349.7	344.9	341.1
30°	343.9	343.9	343.0	342.0	341.1	340.1	338.2	335.3	333.4	329.6	324.8
32.5°	326.7	325.7	325.7	325.7	323.8	323.8	321.9	319.0	315.2	312.3	308.5
35°	295.1	296.0	297.0	299.9	300.8	302.8	302.8	301.8	298.0	294.1	289.3
37.5°	265.4	263.5	266.3	268.3	272.1	274.0	275.0	278.8	280.7	275.9	271.1
40°	231.9	233.8	235.7	238.6	242.4	243.4	246.2	249.1	253.9	255.8	252.9
42.5°	203.1	203.1	206.0	208.9	211.7	214.6	217.5	221.3	227.1	229.9	230.9
45°	178.2	177.2	178.2	182.0	185.9	187.8	189.7	194.5	200.2	204.1	203.1
47.5°	154.2	155.2	157.1	159.0	161.0	162.9	164.8	170.5	174.4	175.3	174.4
50°	136.0	135.1	137.0	138.0	140.8	141.8	143.7	146.6	149.5	150.4	150.4
52.5°	118.8	119.8	119.8	120.7	122.6	123.6	124.5	127.4	127.4	128.4	127.4
55°	105.4	104.4	105.4	106.3	107.3	108.3	109.2	109.2	109.2	109.2	108.3
57.5°	92.0	92.0	92.9	92.9	93.9	94.8	94.8	93.9	93.9	92.0	91.0
60°	81.4	81.4	81.4	81.4	82.4	82.4	82.4	80.5	78.6	78.6	75.7
62.5°	71.9	70.9	71.9	71.9	71.9	70.9	69.9	68.0	67.1	65.1	63.2
65°	62.3	62.3	62.3	62.3	61.3	61.3	60.4	58.4	56.5	55.6	52.7
67.5°	53.7	53.7	53.7	53.7	52.7	51.7	50.8	48.9	46.9	46.0	43.1
70°	46.0	45.0	45.0	45.0	44.1	43.1	42.2	41.2	39.3	37.4	35.4
72.5°	38.3	38.3	37.4	37.4	36.4	35.4	34.5	33.5	31.6	29.7	27.8
75°	30.7	30.7	30.7	29.7	28.7	28.7	27.8	25.9	24.9	23.0	22.0
77.5°	24.9	24.0	24.0	23.0	22.0	22.0	21.1	20.1	19.2	18.2	16.3
80°	18.2	18.2	18.2	17.2	16.3	16.3	15.3	14.4	13.4	12.5	11.5
82.5°	12.5	12.5	12.5	11.5	11.5	10.5	10.5	9.6	9.6	8.6	7.7
85°	6.7	6.7	6.7	6.7	6.7	5.7	5.7	5.7	4.8	4.8	3.8
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.0	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3
2.5°	409.1	409.1	408.1	407.2	407.2	406.2	405.3	405.3	404.3	403.3	402.4
5°	411.0	410.1	408.1	407.2	406.2	406.2	404.3	402.4	401.4	400.5	398.6
7.5°	411.0	409.1	407.2	405.3	404.3	403.3	400.5	398.6	396.6	393.8	391.9
10°	409.1	406.2	403.3	400.5	399.5	397.6	394.7	392.8	389.0	386.1	383.2
12.5°	404.3	401.4	397.6	393.8	391.9	389.9	386.1	383.2	379.4	376.5	372.7
15°	397.6	393.8	389.9	386.1	383.2	382.3	377.5	372.7	368.9	364.1	359.3
17.5°	388.0	384.2	379.4	375.6	372.7	370.8	365.0	360.2	355.4	350.7	345.9
20°	377.5	372.7	367.9	362.2	360.2	357.4	351.6	345.9	340.1	335.3	329.6
22.5°	365.0	360.2	354.5	349.7	345.9	343.0	337.2	330.5	324.8	319.0	313.3
25°	350.7	345.9	340.1	334.4	330.5	327.7	321.0	314.2	308.5	301.8	296.0
27.5°	336.3	330.5	324.8	317.1	314.2	310.4	303.7	297.0	290.3	283.6	276.9
30°	320.0	313.3	307.5	299.9	297.0	293.2	285.5	278.8	272.1	265.4	257.7
32.5°	302.8	296.0	289.3	282.6	278.8	275.0	268.3	260.6	252.0	245.3	239.5
35°	283.6	277.8	271.1	263.5	258.7	254.8	245.3	237.6	229.0	223.2	216.5
37.5°	266.3	258.7	250.1	240.5	235.7	230.9	221.3	213.7	206.9	199.3	193.5
40°	245.3	236.6	227.1	215.6	212.7	207.9	199.3	190.7	184.0	177.2	171.5
42.5°	222.3	212.7	204.1	194.5	189.7	184.9	176.3	167.7	161.0	155.2	149.5
45°	199.3	190.7	181.1	171.5	166.7	162.9	154.2	146.6	140.8	135.1	130.3
47.5°	173.4	167.7	159.0	150.4	144.7	140.8	134.1	127.4	120.7	115.0	112.1
50°	148.5	144.7	138.0	129.3	125.5	121.7	114.0	108.3	103.5	98.7	94.8
52.5°	125.5	122.6	117.8	110.2	107.3	102.5	96.8	92.0	87.2	83.4	80.5
55°	106.3	102.5	98.7	93.9	90.1	88.1	81.4	77.6	73.8	69.9	67.1
57.5°	88.1	86.2	82.4	78.6	75.7	72.8	68.0	64.2	61.3	57.5	55.6
60°	74.7	70.9	68.0	64.2	62.3	60.4	56.5	52.7	49.8	46.9	45.0
62.5°	61.3	58.4	55.6	51.7	50.8	48.9	46.0	42.2	40.2	37.4	35.4
65°	50.8	47.9	46.0	42.2	41.2	39.3	36.4	33.5	31.6	29.7	27.8
67.5°	41.2	39.3	36.4	33.5	32.6	30.7	27.8	25.9	24.0	22.0	21.1
70°	33.5	31.6	28.7	25.9	24.9	24.0	21.1	20.1	18.2	16.3	15.3
72.5°	26.8	24.9	22.0	20.1	19.2	18.2	16.3	14.4	13.4	11.5	10.5
75°	20.1	18.2	16.3	14.4	13.4	13.4	11.5	10.5	9.6	7.7	6.7
77.5°	15.3	13.4	11.5	10.5	9.6	8.6	7.7	6.7	5.7	4.8	3.8
80°	10.5	9.6	7.7	6.7	6.7	5.7	4.8	4.8	3.8	2.9	1.9
82.5°	6.7	5.7	4.8	3.8	3.8	3.8	2.9	1.9	1.9	1.9	1.0
85°	2.9	2.9	1.9	1.9	1.9	1.9	1.0	1.0	1.0	0.0	0.0
87.5°	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3
2.5°	402.4	401.4	400.5	400.5	399.5	399.5	398.6	398.6	397.6	397.6	396.6
5°	396.6	395.7	393.8	393.8	392.8	391.9	389.9	389.0	388.0	387.1	386.1
7.5°	389.9	387.1	385.1	384.2	383.2	381.3	379.4	377.5	375.6	374.6	372.7
10°	379.4	376.5	374.6	373.6	371.7	368.9	366.9	364.1	362.2	360.2	358.3
12.5°	368.9	365.0	361.2	360.2	358.3	354.5	352.6	348.7	345.9	343.9	342.0
15°	355.4	351.6	346.8	344.9	343.9	339.2	336.3	333.4	329.6	326.7	324.8
17.5°	340.1	336.3	331.5	328.6	326.7	322.9	318.1	315.2	312.3	307.5	305.6
20°	324.8	319.0	314.2	312.3	309.5	304.7	300.8	297.0	292.2	289.3	285.5
22.5°	306.6	301.8	296.0	293.2	291.3	285.5	281.7	276.9	273.1	270.2	265.4
25°	290.3	283.6	277.8	275.0	272.1	267.3	261.6	257.7	253.9	250.1	246.2
27.5°	271.1	264.4	258.7	256.8	253.9	247.2	243.4	237.6	232.8	229.9	226.1
30°	252.0	245.3	239.5	236.6	233.8	228.0	223.2	218.4	214.6	210.8	206.9
32.5°	232.8	227.1	221.3	218.4	215.6	209.8	205.0	199.3	195.4	190.7	186.8
35°	210.8	205.0	200.2	197.4	195.4	190.7	185.9	181.1	177.2	172.5	168.6
37.5°	187.8	182.0	179.2	176.3	174.4	170.5	166.7	162.9	159.0	155.2	150.4
40°	165.7	162.9	157.1	156.2	154.2	150.4	147.5	143.7	140.8	137.0	133.2
42.5°	145.6	140.8	137.0	136.0	134.1	131.3	128.4	125.5	123.6	119.8	116.9
45°	126.5	122.6	118.8	116.9	115.9	113.1	110.2	108.3	106.3	103.5	100.6
47.5°	108.3	104.4	101.6	100.6	98.7	96.8	93.9	92.0	89.1	87.2	84.3
50°	92.0	89.1	86.2	85.3	83.4	82.4	79.5	77.6	74.7	71.9	69.9
52.5°	77.6	74.7	72.8	71.9	70.9	68.0	66.1	64.2	61.3	59.4	56.5
55°	64.2	62.3	60.4	59.4	58.4	56.5	54.6	51.7	49.8	46.9	44.1
57.5°	52.7	50.8	48.9	47.9	46.9	45.0	43.1	41.2	38.3	35.4	32.6
60°	42.2	41.2	39.3	38.3	37.4	35.4	33.5	30.7	28.7	24.9	23.0
62.5°	33.5	32.6	30.7	29.7	28.7	25.9	24.0	22.0	19.2	16.3	13.4
65°	25.9	24.0	22.0	22.0	21.1	19.2	16.3	13.4	11.5	8.6	5.7
67.5°	19.2	17.2	15.3	15.3	14.4	12.5	9.6	7.7	4.8	2.9	0.0
70°	13.4	12.5	10.5	9.6	8.6	6.7	4.8	2.9	1.0	0.0	0.0
72.5°	9.6	7.7	6.7	5.7	4.8	2.9	1.0	0.0	0.0	0.0	0.0
75°	5.7	4.8	2.9	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.9	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	405.3	405.3	405.3	405.3	405.3	405.3	405.3	405.3
2.5°	396.6	395.7	395.7	395.7	395.7	395.7	394.7	394.7
5°	385.1	384.2	384.2	383.2	383.2	383.2	382.3	382.3
7.5°	371.7	370.8	369.8	369.8	368.9	368.9	367.9	368.9
10°	356.4	354.5	354.5	354.5	353.5	352.6	352.6	352.6
12.5°	340.1	338.2	337.2	336.3	335.3	335.3	334.4	334.4
15°	321.9	320.0	319.0	318.1	317.1	316.2	315.2	316.2
17.5°	302.8	300.8	299.9	298.9	297.0	297.0	296.0	295.1
20°	282.6	280.7	279.8	278.8	277.8	276.9	275.9	275.0
22.5°	262.5	261.6	258.7	258.7	256.8	255.8	254.8	254.8
25°	242.4	240.5	239.5	237.6	235.7	234.7	234.7	234.7
27.5°	222.3	220.4	218.4	217.5	216.5	215.6	213.7	213.7
30°	203.1	200.2	198.3	198.3	196.4	194.5	194.5	193.5
32.5°	184.0	181.1	179.2	178.2	177.2	175.3	174.4	174.4
35°	164.8	161.9	161.0	159.0	157.1	157.1	154.2	155.2
37.5°	147.5	143.7	142.8	141.8	138.9	138.0	137.0	138.0
40°	129.3	126.5	124.5	123.6	121.7	119.8	118.8	118.8
42.5°	112.1	110.2	108.3	107.3	104.4	102.5	101.6	102.5
45°	96.8	93.9	92.9	91.0	88.1	86.2	85.3	85.3
47.5°	81.4	79.5	76.6	75.7	72.8	70.9	69.0	69.0
50°	67.1	64.2	62.3	60.4	58.4	55.6	53.7	54.6
52.5°	53.7	49.8	48.9	46.9	44.1	41.2	39.3	39.3
55°	41.2	38.3	36.4	35.4	31.6	28.7	26.8	25.9
57.5°	29.7	26.8	25.9	24.0	21.1	18.2	15.3	15.3
60°	20.1	17.2	15.3	14.4	11.5	9.6	6.7	5.7
62.5°	10.5	8.6	6.7	5.7	3.8	1.9	1.9	1.0
65°	2.9	1.0	1.0	1.0	1.0	1.0	1.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)