

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P130046

Luminaire Tested: **HL618TAT - HLM6927 - HL6FL - 70PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33455)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL618TAT - HLM6927 - HL6FL - 70PS
Description: HALO ALLSLOPE 6" 30W, Albalite Glass Lens, White Polymer Trim Ring
"Dead Front", Wet Location - Showerlight using 40 Degree Optic at a 6-12
Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 971.0 lumens
Efficiency: N/A
Efficacy: 35.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.05 / 1.21
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

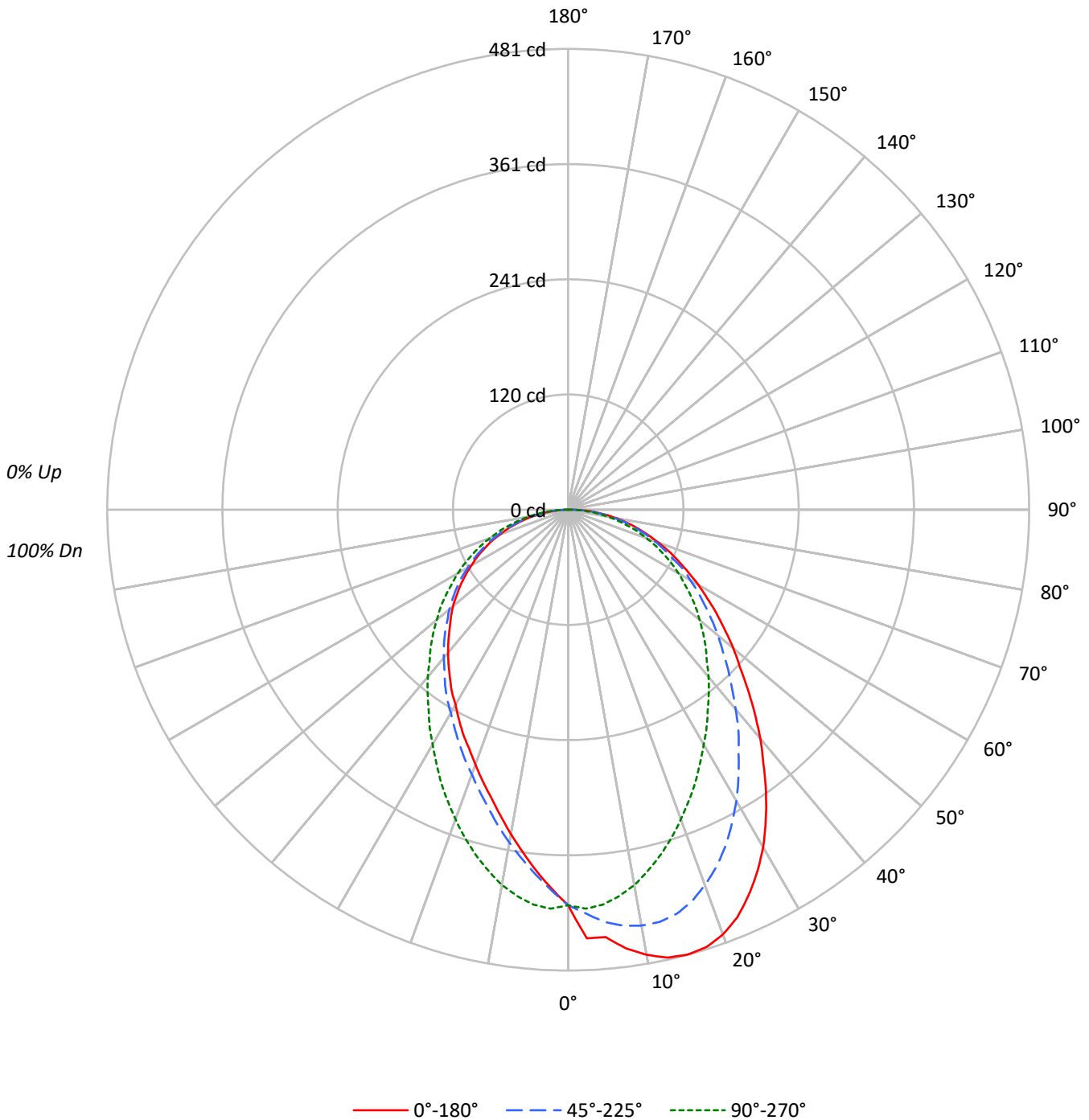
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	84
2	99	91	84	78	96	89	83	78	85	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	53	51
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32
9	58	45	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	24640	24640	24640
5°	26222	24231	22182
10°	27317	23032	19906
15°	27737	21506	17935
20°	27327	19913	16386
25°	26065	18395	15172
30°	24309	16905	14037
35°	22105	15599	13203
40°	19873	14521	12418
45°	17667	13532	11665
50°	15862	12617	11066
55°	14250	11761	10328
60°	12827	10865	9557
65°	11417	9888	8727
70°	10088	8776	7667
75°	8685	7411	6369
80°	6993	5759	4799
85°	4750	3562	2545



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	4.0
10°-20°	107.4	11.1
20°-30°	151.9	15.6
30°-40°	168.1	17.3
40°-50°	162.2	16.7
50°-60°	141.7	14.6
60°-70°	109.3	11.3
70°-80°	68.2	7.0
80°-90°	23.5	2.4
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°	298.1	30.7
0°-40°	466.2	48.0
0°-60°	770.1	79.3
0°-90°	971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	971.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	413	413	413	413	413	
5°	448	432	414	383	379	44
15°	481	437	373	322	311	135
25°	445	388	314	269	259	204
35°	360	310	254	224	215	225
45°	265	236	203	182	175	205
55°	189	174	156	142	137	169
65°	127	120	110	100	97	126
75°	75	72	64	58	55	79
85°	28	26	21	17	15	30
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°	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8
2.5°	447.8	426.8	433.8	425.8	424.8	419.8	424.8	427.8	419.8	421.8	422.8
5°	447.8	443.8	448.8	440.8	439.8	443.8	438.8	439.8	429.8	431.8	430.8
7.5°	461.8	456.8	462.8	453.8	452.8	454.8	448.8	449.8	437.8	437.8	436.8
10°	471.8	467.8	472.8	462.8	460.8	462.8	455.8	455.8	441.8	440.8	437.8
12.5°	478.8	474.8	478.8	468.8	466.8	467.8	458.8	456.8	442.8	440.8	435.8
15°	480.8	476.8	481.8	469.8	467.8	466.8	457.8	455.8	439.8	436.8	430.8
17.5°	478.8	474.8	478.8	466.8	463.8	461.8	452.8	449.8	433.8	428.8	421.8
20°	471.8	465.8	471.8	459.8	455.8	453.8	442.8	439.8	422.8	416.8	409.8
22.5°	460.8	456.8	460.8	447.8	444.8	441.8	430.8	426.8	409.8	403.8	394.8
25°	444.8	442.8	439.8	432.8	428.8	426.8	415.8	410.8	393.8	387.8	378.8
27.5°	426.8	424.8	426.8	413.8	410.8	406.8	397.8	392.8	375.8	369.8	359.8
30°	406.8	402.8	405.8	393.8	391.8	385.8	376.8	372.8	355.8	350.8	340.8
32.5°	383.8	381.8	383.8	371.8	368.8	364.8	355.8	351.8	335.8	330.8	322.9
35°	359.8	355.8	358.8	347.8	345.8	340.8	332.8	328.9	314.9	309.9	302.9
37.5°	334.8	331.8	334.8	324.9	322.9	317.9	311.9	306.9	293.9	291.9	283.9
40°	311.9	308.9	310.9	302.9	299.9	296.9	290.9	285.9	274.9	271.9	259.9
42.5°	287.9	285.9	287.9	278.9	276.9	273.9	268.9	265.9	255.9	252.9	246.9
45°	264.9	263.9	265.9	258.9	255.9	253.9	248.9	246.9	236.9	235.9	230.9
47.5°	242.9	247.9	243.9	237.9	235.9	232.9	229.9	228.9	219.9	218.9	213.9
50°	224.9	222.9	222.9	217.9	217.9	214.9	212.9	210.9	203.9	203.9	198.9
52.5°	205.9	204.9	204.9	200.9	199.9	198.9	195.9	194.9	187.9	188.9	184.9
55°	188.9	191.9	187.9	183.9	183.9	181.9	180.9	179.9	173.9	173.9	169.9
57.5°	171.9	170.9	171.9	167.9	167.9	165.9	164.9	164.9	158.9	160.9	156.9
60°	156.9	154.9	155.9	152.9	151.9	151.9	152.9	150.9	145.9	146.9	143.9
62.5°	140.9	139.9	141.9	137.9	137.9	137.9	136.9	136.9	131.9	135.9	130.9
65°	126.9	125.9	127.9	124.9	124.9	123.9	122.9	122.9	119.9	119.9	118.9
67.5°	113.9	112.9	114.9	111.9	111.9	110.9	110.9	109.9	107.0	108.0	106.0
70°	100.0	100.0	101.0	99.0	99.0	98.0	98.0	97.0	95.0	96.0	94.0
72.5°	87.0	87.0	88.0	86.0	86.0	85.0	85.0	85.0	83.0	84.0	82.0
75°	75.0	75.0	75.0	74.0	74.0	73.0	73.0	73.0	71.0	72.0	71.0
77.5°	63.0	63.0	63.0	62.0	62.0	61.0	61.0	61.0	59.0	60.0	59.0
80°	51.0	51.0	51.0	50.0	50.0	49.0	49.0	49.0	48.0	49.0	48.0
82.5°	39.0	39.0	40.0	39.0	39.0	38.0	38.0	38.0	37.0	37.0	37.0
85°	28.0	28.0	29.0	28.0	27.0	27.0	27.0	26.0	26.0	26.0	26.0
87.5°	18.0	18.0	18.0	18.0	17.0	17.0	16.0	16.0	16.0	16.0	16.0
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°	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8
2.5°	423.8	418.8	419.8	415.8	416.8	414.8	413.8	416.8	407.8	414.8	409.8
5°	430.8	423.8	423.8	417.8	417.8	413.8	410.8	413.8	401.8	407.8	401.8
7.5°	433.8	425.8	423.8	416.8	415.8	409.8	405.8	406.8	394.8	398.8	390.8
10°	434.8	424.8	421.8	412.8	409.8	403.8	396.8	397.8	383.8	387.8	378.8
12.5°	430.8	419.8	415.8	405.8	400.8	393.8	385.8	385.8	370.8	374.8	365.8
15°	424.8	412.8	406.8	395.8	390.8	382.8	373.8	372.8	358.8	359.8	350.8
17.5°	414.8	401.8	393.8	382.8	377.8	368.8	359.8	358.8	344.8	345.8	336.8
20°	401.8	387.8	380.8	369.8	368.8	354.8	345.8	343.8	328.9	330.8	321.9
22.5°	387.8	373.8	365.8	353.8	347.8	338.8	329.8	328.9	314.9	314.9	306.9
25°	369.8	356.8	349.8	337.8	331.8	323.9	313.9	313.9	299.9	299.9	292.9
27.5°	352.8	339.8	331.8	320.9	315.9	313.9	298.9	297.9	284.9	285.9	278.9
30°	333.8	324.9	314.9	303.9	298.9	291.9	283.9	282.9	270.9	266.9	264.9
32.5°	315.9	303.9	297.9	287.9	282.9	275.9	268.9	268.9	256.9	258.9	251.9
35°	296.9	291.9	279.9	270.9	266.9	261.9	253.9	253.9	243.9	244.9	239.9
37.5°	277.9	267.9	267.9	255.9	247.9	246.9	240.9	240.9	230.9	232.9	227.9
40°	260.9	251.9	246.9	240.9	236.9	232.9	227.9	227.9	218.9	220.9	215.9
42.5°	243.9	234.9	231.9	225.9	222.9	218.9	213.9	213.9	206.9	207.9	203.9
45°	227.9	219.9	217.9	214.9	208.9	206.9	201.9	202.9	194.9	195.9	192.9
47.5°	211.9	204.9	202.9	197.9	195.9	192.9	188.9	190.9	182.9	183.9	181.9
50°	197.9	190.9	189.9	184.9	183.9	181.9	177.9	178.9	172.9	173.9	171.9
52.5°	183.9	177.9	176.9	172.9	171.9	168.9	165.9	167.9	161.9	162.9	159.9
55°	169.9	164.9	163.9	159.9	159.9	157.9	153.9	155.9	149.9	151.9	148.9
57.5°	155.9	152.9	150.9	147.9	147.9	145.9	142.9	143.9	139.9	139.9	138.9
60°	143.9	138.9	139.9	135.9	135.9	134.9	130.9	132.9	127.9	128.9	127.9
62.5°	130.9	126.9	126.9	124.9	123.9	122.9	119.9	121.9	116.9	117.9	115.9
65°	118.9	115.9	114.9	112.9	111.9	110.9	109.0	109.9	106.0	107.0	106.0
67.5°	106.0	104.0	103.0	101.0	101.0	100.0	97.0	99.0	95.0	96.0	95.0
70°	94.0	92.0	92.0	89.0	89.0	88.0	86.0	87.0	84.0	84.0	84.0
72.5°	83.0	80.0	79.0	78.0	78.0	77.0	75.0	76.0	73.0	73.0	72.0
75°	71.0	69.0	69.0	67.0	66.0	66.0	64.0	64.0	62.0	62.0	61.0
77.5°	59.0	57.0	57.0	55.0	55.0	55.0	53.0	53.0	51.0	51.0	51.0
80°	48.0	46.0	46.0	44.0	44.0	44.0	42.0	42.0	40.0	40.0	40.0
82.5°	37.0	35.0	35.0	34.0	33.0	33.0	32.0	31.0	30.0	30.0	30.0
85°	26.0	25.0	25.0	24.0	23.0	23.0	21.0	21.0	20.0	20.0	20.0
87.5°	15.0	15.0	14.0	14.0	14.0	13.0	12.0	11.0	10.0	10.0	11.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8	412.8
2.5°	405.8	404.8	405.8	408.8	405.8	397.8	405.8	400.8	396.8	398.8	394.8
5°	395.8	394.8	393.8	395.8	390.8	382.8	390.8	385.8	379.8	379.8	377.8
7.5°	384.8	382.8	380.8	381.8	376.8	367.8	373.8	369.8	364.8	365.8	360.8
10°	372.8	368.8	366.8	366.8	360.8	352.8	357.8	353.8	347.8	348.8	343.8
12.5°	358.8	354.8	352.8	351.8	345.8	337.8	342.8	337.8	332.8	332.8	327.9
15°	340.8	339.8	337.8	336.8	330.8	321.9	327.9	321.9	316.9	317.9	312.9
17.5°	329.8	324.9	321.9	320.9	315.9	307.9	312.9	307.9	302.9	302.9	297.9
20°	315.9	310.9	306.9	306.9	300.9	293.9	298.9	294.9	287.9	289.9	284.9
22.5°	300.9	295.9	293.9	292.9	286.9	281.9	285.9	281.9	275.9	275.9	271.9
25°	286.9	282.9	280.9	279.9	273.9	268.9	272.9	269.9	263.9	264.9	259.9
27.5°	273.9	268.9	266.9	266.9	261.9	256.9	260.9	256.9	251.9	252.9	247.9
30°	259.9	255.9	254.9	254.9	248.9	244.9	247.9	244.9	239.9	240.9	236.9
32.5°	247.9	244.9	242.9	242.9	237.9	234.9	237.9	234.9	230.9	230.9	226.9
35°	235.9	231.9	230.9	234.9	226.9	223.9	225.9	223.9	219.9	219.9	215.9
37.5°	223.9	220.9	219.9	220.9	214.9	211.9	215.9	213.9	209.9	209.9	203.9
40°	211.9	209.9	208.9	208.9	204.9	201.9	205.9	202.9	199.9	199.9	195.9
42.5°	200.9	197.9	197.9	198.9	193.9	191.9	194.9	192.9	188.9	188.9	185.9
45°	190.9	187.9	186.9	187.9	188.9	181.9	184.9	183.9	175.9	179.9	176.9
47.5°	179.9	176.9	176.9	176.9	173.9	170.9	173.9	172.9	168.9	169.9	166.9
50°	169.9	166.9	165.9	166.9	162.9	161.9	164.9	162.9	156.9	159.9	157.9
52.5°	157.9	155.9	155.9	156.9	153.9	151.9	154.9	152.9	149.9	149.9	147.9
55°	147.9	145.9	145.9	146.9	143.9	141.9	143.9	142.9	139.9	139.9	137.9
57.5°	136.9	134.9	135.9	135.9	132.9	131.9	133.9	131.9	129.9	129.9	127.9
60°	125.9	123.9	124.9	124.9	122.9	120.9	122.9	121.9	118.9	118.9	117.9
62.5°	114.9	113.9	113.9	113.9	111.9	110.9	111.9	110.9	109.0	109.0	107.0
65°	105.0	103.0	103.0	103.0	101.0	100.0	101.0	100.0	99.0	98.0	97.0
67.5°	94.0	93.0	92.0	92.0	90.0	90.0	90.0	89.0	88.0	87.0	86.0
70°	83.0	81.0	81.0	81.0	80.0	79.0	79.0	78.0	78.0	77.0	76.0
72.5°	72.0	70.0	71.0	70.0	69.0	68.0	68.0	68.0	67.0	66.0	66.0
75°	61.0	60.0	60.0	60.0	58.0	58.0	58.0	57.0	56.0	56.0	55.0
77.5°	50.0	49.0	51.0	49.0	48.0	47.0	47.0	47.0	45.0	45.0	45.0
80°	40.0	38.0	39.0	39.0	37.0	37.0	36.0	36.0	35.0	35.0	35.0
82.5°	29.0	29.0	29.0	28.0	27.0	27.0	27.0	26.0	25.0	25.0	25.0
85°	19.0	19.0	18.0	18.0	18.0	17.0	17.0	16.0	15.0	15.0	15.0
87.5°	9.0	9.0	9.0	9.0	8.0	8.0	8.0	7.0	7.0	6.0	7.0
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):

	165°	170°	175°	180°
0°	412.8	412.8	412.8	412.8
2.5°	393.8	396.8	397.8	395.8
5°	376.8	379.8	379.8	378.8
7.5°	358.8	363.8	362.8	360.8
10°	341.8	346.8	345.8	343.8
12.5°	325.9	329.8	328.9	326.9
15°	309.9	314.9	313.9	310.9
17.5°	295.9	299.9	299.9	296.9
20°	282.9	286.9	285.9	282.9
22.5°	270.9	273.9	272.9	269.9
25°	258.9	267.9	260.9	258.9
27.5°	246.9	250.9	249.9	246.9
30°	235.9	238.9	237.9	234.9
32.5°	225.9	229.9	227.9	225.9
35°	214.9	218.9	216.9	214.9
37.5°	205.9	208.9	206.9	204.9
40°	194.9	198.9	197.9	194.9
42.5°	185.9	188.9	187.9	184.9
45°	176.9	179.9	178.9	174.9
47.5°	166.9	169.9	167.9	165.9
50°	156.9	159.9	158.9	156.9
52.5°	147.9	150.9	148.9	146.9
55°	137.9	140.9	138.9	136.9
57.5°	127.9	130.9	128.9	126.9
60°	116.9	119.9	117.9	116.9
62.5°	107.0	109.9	108.0	107.0
65°	97.0	99.0	98.0	97.0
67.5°	87.0	89.0	87.0	87.0
70°	76.0	78.0	77.0	76.0
72.5°	65.0	67.0	67.0	66.0
75°	55.0	56.0	56.0	55.0
77.5°	45.0	46.0	45.0	45.0
80°	35.0	35.0	35.0	35.0
82.5°	25.0	26.0	25.0	25.0
85°	15.0	16.0	15.0	15.0
87.5°	6.0	7.0	6.0	7.0
90°	0.0	0.0	0.0	0.0

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