

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 COMMERCIAL

Report Number: P583566

Luminaire Tested: **HC807D010-HM80520827-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583566
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520827-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 891.2 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.08 / 1.17
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

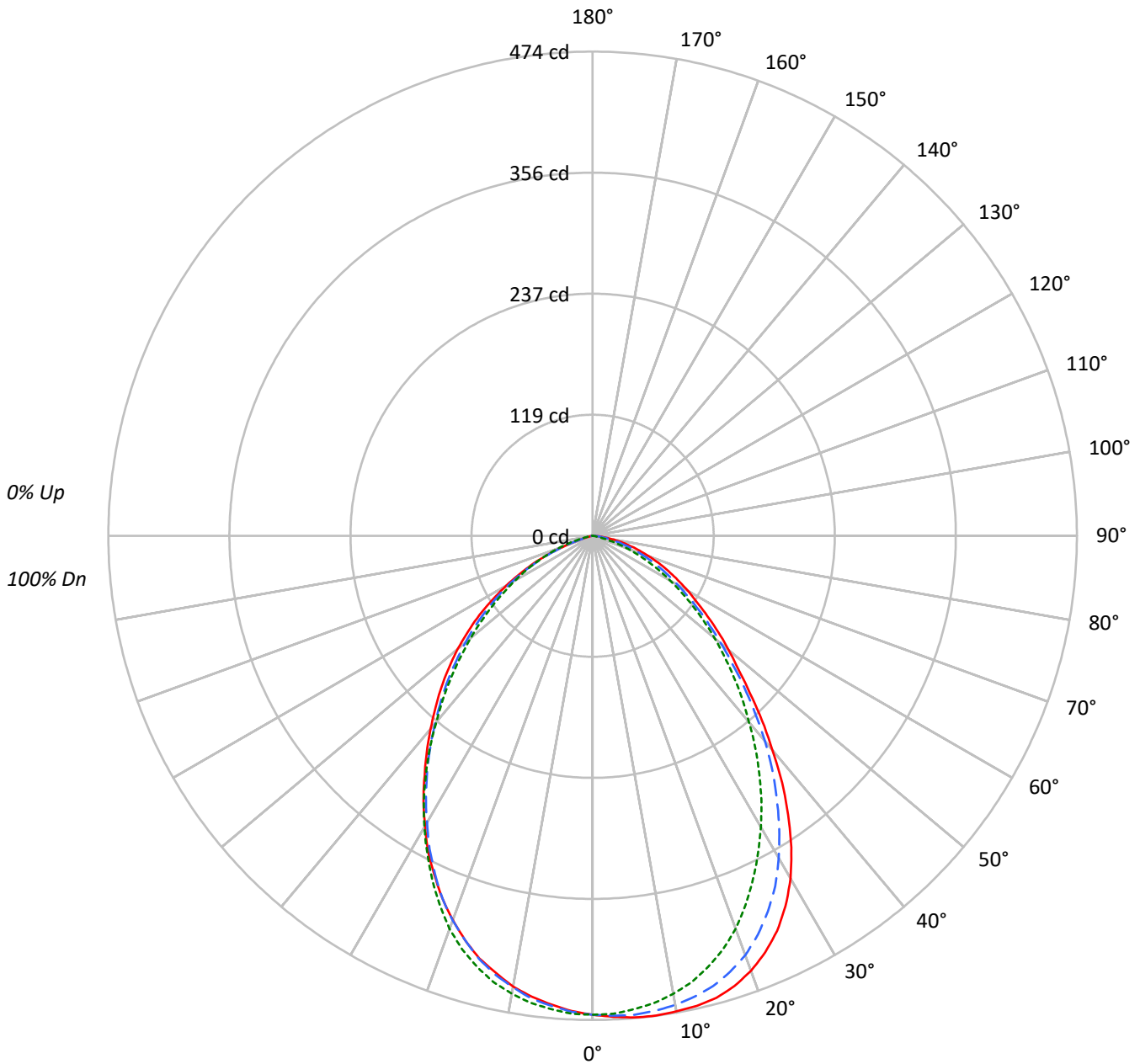
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77																			
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67																			
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59																			
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14459	14459	14459
5°	14651	14400	14264
10°	14801	14253	14034
15°	14950	13951	13673
20°	14875	13435	13129
25°	14528	12633	12463
30°	13798	11725	11679
35°	12558	10702	10796
40°	11009	9576	9927
45°	9498	8521	9119
50°	8318	7479	8261
55°	7371	6430	7274
60°	6642	5403	6019
65°	5983	4341	4611
70°	5247	3156	2542
75°	4468	1632	667
80°	3445	444	107
85°	2194	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	5.0
10°-20°	124.4	14.0
20°-30°	176.5	19.8
30°-40°	185.8	20.9
40°-50°	158.1	17.7
50°-60°	114.2	12.8
60°-70°	65.0	7.3
70°-80°	20.5	2.3
80°-90°	2.5	0.3
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°	345.2	38.7
0°-40°	531.0	59.6
0°-60°	803.3	90.1
0°-90°	891.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	891.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	469	469	469	469	469	
5°	473	471	465	462	461	45
15°	468	456	437	429	428	132
25°	427	406	371	365	366	196
35°	334	314	284	282	287	208
45°	218	210	195	200	209	169
55°	137	127	120	126	135	124
65°	82	71	60	59	63	81
75°	38	29	14	6	6	40
85°	6	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°	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9
2.5°	471.4	472.0	470.8	470.8	472.0	470.8	471.4	471.4	470.8	470.8	470.2
5°	473.3	472.7	472.7	472.7	473.3	472.0	471.4	472.0	470.8	470.8	470.8
7.5°	473.9	473.9	473.3	472.7	472.7	472.7	472.0	471.4	470.8	469.5	468.9
10°	472.7	472.7	473.3	472.0	472.0	470.8	470.8	469.5	469.5	468.3	466.4
12.5°	471.4	470.8	470.8	469.5	469.5	468.3	468.3	466.4	465.8	463.9	462.0
15°	468.3	467.7	466.4	465.8	465.2	464.5	463.3	462.7	460.8	458.3	456.4
17.5°	462.0	461.4	460.8	459.6	458.3	457.7	457.1	455.2	452.7	450.8	447.6
20°	453.3	452.7	452.7	450.8	450.2	448.2	447.6	445.1	443.2	439.5	437.0
22.5°	441.4	442.0	440.7	439.5	438.2	436.4	435.1	432.6	429.5	425.8	422.6
25°	427.0	427.6	426.4	425.1	423.3	422.0	420.8	416.9	413.8	409.4	405.7
27.5°	408.8	408.8	408.8	407.6	404.4	403.8	402.6	398.8	394.5	390.6	386.9
30°	387.5	386.9	386.9	385.0	383.8	381.3	379.4	376.3	373.2	368.8	364.4
32.5°	361.8	362.4	360.7	359.3	357.5	357.5	355.0	352.5	348.7	344.4	340.0
35°	333.6	334.4	333.0	332.4	329.3	328.7	328.0	324.9	322.4	319.3	314.3
37.5°	304.8	304.2	303.6	303.6	301.7	300.5	299.2	297.4	293.6	291.1	288.6
40°	273.5	273.5	273.5	272.9	272.3	271.1	270.4	269.2	266.7	264.2	262.3
42.5°	245.5	245.5	244.7	244.1	242.9	243.5	242.3	241.0	238.5	236.6	235.4
45°	217.8	217.8	217.8	218.4	217.3	215.3	215.3	214.1	212.8	211.6	209.7
47.5°	193.5	195.4	194.1	193.5	194.1	191.6	191.6	190.4	189.0	187.9	185.3
50°	173.4	173.4	173.4	172.2	171.6	171.6	169.7	168.4	167.8	166.6	164.1
52.5°	155.2	154.0	154.0	153.4	152.7	151.5	151.5	150.2	147.7	146.5	144.6
55°	137.1	137.1	136.5	135.9	135.3	134.6	134.0	132.0	130.9	128.9	127.1
57.5°	120.8	122.1	121.4	120.2	118.9	118.9	117.7	116.4	114.6	112.7	110.8
60°	107.7	107.1	107.1	106.5	105.2	104.6	104.0	102.1	100.1	98.3	96.4
62.5°	93.9	93.9	93.9	92.6	91.4	90.8	90.1	88.9	86.4	84.5	83.3
65°	82.0	81.4	80.8	80.2	79.5	78.3	77.7	76.4	74.4	72.7	70.7
67.5°	70.1	69.5	69.5	68.8	67.0	66.3	66.3	64.5	62.6	60.7	58.8
70°	58.2	58.2	58.2	57.0	56.4	55.7	55.1	53.9	52.0	50.1	48.2
72.5°	48.2	47.6	47.6	47.0	45.1	44.5	43.9	42.5	40.7	39.4	38.2
75°	37.5	37.5	36.9	36.3	35.7	35.0	34.4	33.2	31.3	29.4	28.8
77.5°	28.8	28.2	28.2	27.6	26.3	25.7	25.7	24.4	22.6	21.3	20.1
80°	19.4	20.1	19.4	18.8	18.2	17.6	16.8	16.3	15.1	13.7	12.5
82.5°	12.0	12.5	12.0	12.0	11.2	10.6	10.6	9.4	8.7	8.1	7.5
85°	6.2	6.2	6.2	6.2	5.6	5.6	5.6	5.0	4.4	3.7	3.7
87.5°	1.9	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.2	1.2	1.2
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°	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9
2.5°	470.8	470.2	469.5	469.5	469.5	469.5	469.5	468.9	468.3	468.3	468.3
5°	469.5	469.5	469.5	468.9	468.3	468.3	467.0	466.4	465.8	465.2	464.5
7.5°	468.3	467.0	466.4	465.8	465.2	465.2	463.9	462.7	462.7	461.4	460.2
10°	464.5	463.9	462.7	461.4	460.8	460.2	458.9	457.1	456.4	455.2	453.9
12.5°	460.2	458.9	457.7	455.2	454.6	453.9	451.4	449.6	448.2	447.6	444.5
15°	454.6	452.1	450.2	447.0	446.3	445.1	443.2	441.4	438.9	437.0	435.7
17.5°	444.5	442.0	438.9	435.7	434.5	434.5	431.4	428.9	425.8	424.5	422.0
20°	432.6	429.5	427.0	423.3	421.4	419.4	417.5	413.8	411.3	409.4	406.3
22.5°	418.8	414.4	411.3	407.6	404.4	402.6	399.5	396.3	393.2	391.2	388.7
25°	401.3	397.6	392.6	388.7	386.9	384.4	380.6	377.5	374.4	371.3	370.0
27.5°	381.9	376.9	372.5	368.2	366.3	364.4	359.9	356.2	353.7	350.6	349.3
30°	360.7	355.6	350.6	346.8	345.0	341.9	339.4	335.0	331.9	329.3	326.2
32.5°	336.2	332.4	328.0	322.4	321.2	318.7	314.9	313.1	309.3	307.4	304.8
35°	309.9	307.4	303.1	298.6	296.7	295.5	292.4	288.6	286.1	284.3	283.0
37.5°	284.9	281.8	277.4	274.3	272.9	271.1	267.3	265.4	262.9	261.7	259.2
40°	258.0	254.8	251.7	249.8	248.0	246.6	244.1	242.3	239.8	237.9	237.3
42.5°	231.6	229.8	227.3	224.8	224.2	222.3	221.0	219.2	217.3	216.7	214.7
45°	207.8	206.0	203.5	201.0	200.4	199.1	198.5	196.6	195.4	195.4	195.4
47.5°	184.0	182.2	179.7	178.4	179.0	176.5	176.5	175.9	174.7	174.7	175.3
50°	162.8	160.2	159.7	158.3	157.1	155.9	156.5	154.6	154.6	155.9	155.2
52.5°	142.8	140.3	139.6	138.4	137.8	137.8	137.1	137.1	136.5	137.1	137.1
55°	124.6	122.7	121.4	120.2	119.6	119.6	119.6	118.9	118.3	119.6	120.2
57.5°	108.3	107.7	106.5	104.6	104.0	103.2	102.7	102.7	102.7	102.7	103.2
60°	93.9	92.6	91.4	89.5	89.5	88.9	88.3	87.6	87.6	87.6	87.6
62.5°	81.4	79.5	77.7	76.4	75.8	75.2	74.4	73.3	73.3	73.3	73.3
65°	68.8	67.0	65.7	64.5	63.2	63.2	62.0	61.3	60.1	59.5	58.2
67.5°	57.0	55.7	54.5	52.6	52.0	51.4	50.1	49.5	47.6	47.0	46.4
70°	46.4	44.5	43.1	41.9	41.3	40.0	38.8	37.5	36.3	35.0	33.8
72.5°	36.3	34.4	33.2	31.9	30.7	30.7	28.8	27.6	25.7	24.4	22.6
75°	26.9	25.1	23.8	21.9	21.3	20.7	18.8	17.6	15.7	13.7	12.5
77.5°	18.2	16.8	15.7	13.7	12.5	12.5	10.6	9.4	8.1	6.2	5.6
80°	11.2	10.0	8.7	7.5	7.5	6.2	5.6	4.4	3.1	2.5	1.9
82.5°	6.2	5.6	5.0	3.7	3.7	3.1	2.5	1.9	1.2	0.6	0.6
85°	3.1	2.5	1.9	1.9	1.2	1.2	1.2	0.6	0.6	0.0	0.0
87.5°	1.2	0.6	0.6	0.6	0.6	0.6	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°	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9
2.5°	467.7	467.7	467.0	467.0	467.0	466.4	467.0	466.4	466.4	466.4	467.0
5°	465.2	463.9	463.9	463.3	463.3	462.7	463.3	462.7	462.0	461.4	462.0
7.5°	460.2	458.9	458.3	457.7	457.7	457.7	457.1	456.4	457.1	455.2	456.4
10°	453.3	452.7	451.4	450.8	450.2	450.8	450.2	448.8	448.8	448.8	448.2
12.5°	444.5	443.2	442.6	442.0	440.7	440.7	441.4	440.1	440.1	438.9	438.9
15°	433.9	432.6	431.4	431.4	430.1	430.1	429.5	429.5	428.9	428.3	428.3
17.5°	420.8	418.8	417.5	418.2	417.5	416.9	416.9	415.7	415.1	415.7	415.7
20°	405.1	403.8	402.6	403.2	402.0	401.3	402.0	400.1	400.7	400.7	400.7
22.5°	387.5	386.9	385.0	385.0	383.8	383.1	383.8	383.8	384.4	383.8	383.8
25°	368.2	366.9	365.7	365.7	365.0	364.4	365.0	365.7	365.0	365.7	365.7
27.5°	347.5	345.6	345.6	344.4	344.4	345.0	344.4	345.0	345.6	345.6	346.8
30°	324.9	324.3	323.7	323.0	323.0	323.7	323.7	323.7	324.3	325.5	325.5
32.5°	303.6	302.3	301.1	301.1	302.3	301.7	302.3	302.3	303.6	303.6	304.8
35°	280.5	280.5	279.3	279.9	279.9	279.9	279.9	281.1	282.4	283.0	284.3
37.5°	259.2	257.3	258.0	258.0	258.6	258.0	259.8	259.8	261.1	261.1	262.3
40°	236.0	236.0	236.6	236.0	236.6	236.6	237.9	239.1	239.8	241.0	241.6
42.5°	214.1	215.3	214.1	214.7	215.3	215.9	216.7	217.3	219.8	221.0	222.9
45°	194.1	194.7	195.4	196.0	195.4	196.6	197.2	198.5	200.4	201.0	201.6
47.5°	174.7	175.3	175.9	176.5	176.5	177.8	178.4	179.7	180.9	181.5	182.2
50°	155.9	157.1	157.7	157.7	158.3	159.7	160.8	160.8	162.2	164.1	164.7
52.5°	139.0	139.0	140.3	140.9	141.5	141.5	143.4	144.0	144.6	145.9	147.1
55°	120.2	122.1	122.7	122.7	123.9	125.2	125.8	126.4	126.4	128.9	128.9
57.5°	104.0	104.6	105.8	105.8	105.8	107.7	107.7	109.0	109.6	110.2	111.5
60°	87.6	88.9	88.9	89.5	88.9	90.1	90.8	92.0	92.6	93.3	93.9
62.5°	72.7	72.7	73.3	73.3	73.3	73.3	74.4	74.4	75.8	76.4	77.0
65°	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.8	58.8	60.1
67.5°	45.1	44.5	43.1	43.9	43.1	43.1	42.5	42.5	43.1	43.1	44.5
70°	32.5	31.9	30.7	30.7	30.0	29.4	28.8	28.2	27.6	27.6	27.6
72.5°	21.3	20.1	18.2	17.6	17.6	16.3	15.1	14.3	14.3	14.3	14.3
75°	10.6	9.4	8.1	7.5	7.5	6.2	6.9	6.2	6.2	6.2	6.2
77.5°	4.4	3.1	2.5	2.5	2.5	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	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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CATALOG NUMBER: HC807D010-HM80520827-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	468.9	468.9	468.9	468.9	468.9	468.9	468.9	468.9
2.5°	466.4	466.4	465.2	465.8	465.8	465.8	465.8	465.8
5°	460.8	461.4	460.8	461.4	461.4	460.8	460.8	460.8
7.5°	455.2	455.8	455.2	455.8	455.8	455.8	455.2	455.2
10°	448.2	448.2	448.2	448.2	448.2	447.6	448.2	448.2
12.5°	438.9	438.9	438.9	439.5	439.5	438.9	438.9	438.2
15°	428.9	427.6	428.3	428.9	428.3	428.3	428.3	428.3
17.5°	415.1	415.7	415.1	415.1	415.1	415.1	415.7	415.1
20°	400.7	400.7	401.3	400.7	400.7	400.7	400.7	400.1
22.5°	384.4	383.8	383.8	384.4	384.4	383.8	384.4	384.4
25°	366.3	366.9	366.3	366.3	366.9	366.9	366.9	366.3
27.5°	346.8	347.5	348.1	347.5	347.5	347.5	348.1	348.7
30°	326.8	328.0	326.8	326.8	328.0	327.4	328.0	328.0
32.5°	305.6	307.4	306.2	307.4	307.4	308.1	307.4	308.1
35°	284.3	286.1	286.1	286.1	286.8	287.4	287.4	286.8
37.5°	264.2	264.8	264.8	266.1	266.7	267.3	267.3	266.7
40°	243.5	244.7	245.5	245.5	245.5	246.6	248.0	246.6
42.5°	223.5	224.2	224.8	224.8	226.0	226.7	227.3	227.3
45°	204.1	205.3	206.0	206.6	207.2	208.5	207.8	209.1
47.5°	184.0	185.9	186.5	187.1	188.5	189.0	189.6	190.4
50°	165.9	167.2	167.2	168.4	170.3	170.3	171.6	172.2
52.5°	147.7	148.4	149.0	149.6	150.9	152.1	152.1	153.4
55°	130.3	130.9	130.9	131.5	132.0	134.6	135.3	135.3
57.5°	112.1	112.1	113.3	114.0	114.6	115.8	115.8	115.8
60°	94.5	95.1	95.1	95.8	96.4	97.6	98.3	97.6
62.5°	77.0	77.7	77.7	78.3	79.5	80.2	79.5	79.5
65°	60.7	61.3	61.3	62.0	63.2	63.2	62.6	63.2
67.5°	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
70°	28.2	27.6	26.9	27.6	27.6	27.6	26.9	28.2
72.5°	13.7	14.3	14.3	14.3	14.3	14.3	14.3	13.7
75°	6.2	6.2	5.6	5.6	5.6	6.2	6.2	5.6
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)