

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: P593497

Luminaire Tested: **HC807D010-HM80520850-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520850-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 946.2 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.04 / 1.13
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

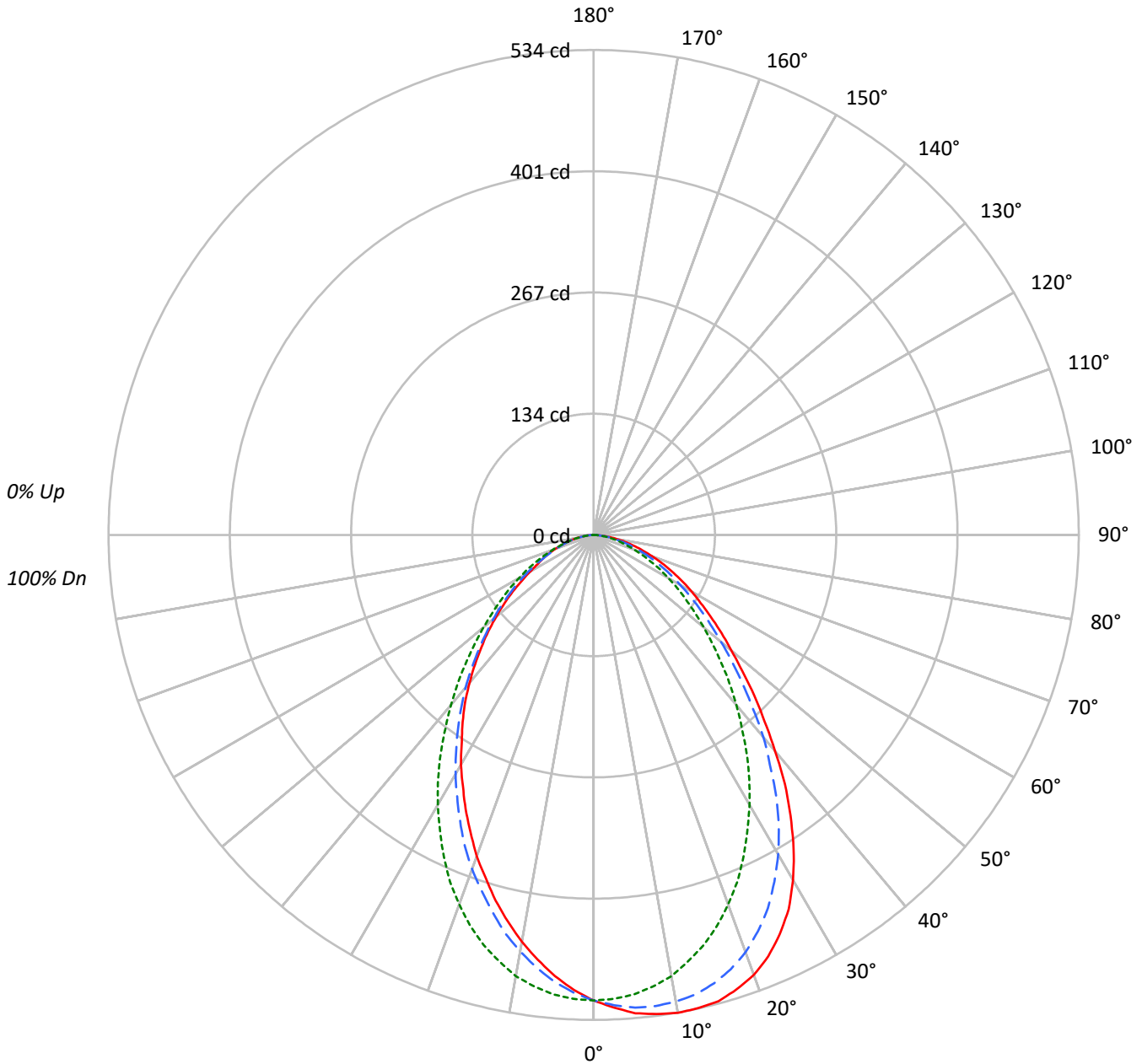
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76																			
3	94	85	78	72	92	83	77	71	81	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	60	54	64	59	54	63	57	53	51																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41																			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																			
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	15810	15810	15810
5°	16365	15722	15096
10°	16730	15443	14244
15°	16968	14925	13303
20°	16916	14199	12348
25°	16498	13280	11337
30°	15628	12213	10404
35°	14218	11052	9456
40°	12487	9826	8542
45°	10894	8648	7614
50°	9475	7575	6707
55°	8457	6656	5833
60°	7678	5834	4977
65°	6902	5071	4517
70°	6140	4328	4075
75°	5385	3646	3479
80°	4564	2966	3090
85°	3432	2194	2441



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.0	5.1
10°-20°	132.3	14.0
20°-30°	183.7	19.4
30°-40°	189.9	20.1
40°-50°	159.0	16.8
50°-60°	115.4	12.2
60°-70°	72.8	7.7
70°-80°	36.1	3.8
80°-90°	8.9	0.9
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°	364.0	38.5
0°-40°	553.9	58.5
0°-60°	828.3	87.5
0°-90°	946.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	946.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	513	513	513	513	513	
5°	529	522	508	494	488	51
15°	532	511	468	430	417	150
25°	485	454	390	348	333	222
35°	378	350	294	260	251	235
45°	250	232	198	179	175	193
55°	157	143	124	113	108	142
65°	95	83	70	61	62	94
75°	45	38	31	29	29	49
85°	10	8	6	7	7	12
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°	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7
2.5°	521.0	521.0	521.7	521.0	521.0	521.0	520.3	520.3	519.7	519.7	518.3
5°	528.7	527.4	528.7	527.4	527.4	527.4	526.6	525.2	524.5	523.2	522.5
7.5°	532.1	531.5	531.5	530.8	530.8	530.1	529.4	528.7	525.9	525.2	523.2
10°	534.3	533.6	533.6	532.9	531.5	531.5	530.1	529.4	525.9	524.5	521.7
12.5°	533.6	533.6	533.6	532.9	530.8	530.1	528.7	526.6	523.9	521.0	518.3
15°	531.5	531.5	530.1	529.4	527.4	525.9	525.2	521.7	519.0	515.5	511.3
17.5°	524.5	524.5	523.9	522.5	520.3	519.0	517.6	514.1	511.3	505.7	501.5
20°	515.5	514.8	514.1	512.1	509.9	509.2	507.2	502.3	498.8	494.6	489.0
22.5°	502.3	501.5	500.8	499.5	496.0	494.6	493.2	489.7	483.5	479.3	472.4
25°	484.9	484.9	483.5	481.3	477.9	476.6	474.4	470.9	465.5	459.1	453.6
27.5°	464.7	464.0	461.9	460.6	457.7	455.7	452.2	448.0	442.4	437.6	430.6
30°	438.9	438.9	437.6	435.5	432.0	430.6	427.8	422.9	417.4	411.1	406.3
32.5°	409.8	409.8	407.6	406.3	404.1	400.7	400.0	394.5	389.6	384.7	379.2
35°	377.7	378.5	377.0	374.3	370.8	370.8	369.4	364.5	359.0	354.1	349.9
37.5°	345.7	343.7	343.0	341.5	339.5	336.8	335.3	333.2	328.4	324.9	318.6
40°	310.2	310.9	309.6	308.2	307.5	305.4	304.7	301.3	297.8	293.6	290.7
42.5°	278.3	278.3	278.3	276.9	275.4	273.4	272.7	270.7	266.5	263.6	259.4
45°	249.8	247.6	247.6	247.0	246.3	244.9	242.8	241.4	238.6	236.5	231.7
47.5°	221.9	222.6	221.9	221.2	219.2	218.4	217.7	215.0	212.2	210.1	206.6
50°	197.5	199.0	197.5	197.5	196.2	195.5	194.1	192.0	189.9	186.4	183.0
52.5°	177.3	177.3	176.7	176.0	173.9	172.6	171.8	171.1	167.7	164.9	162.0
55°	157.3	157.9	157.9	155.8	155.1	153.8	153.1	150.9	149.6	145.4	143.3
57.5°	139.8	139.1	139.8	138.4	137.1	135.6	134.9	133.6	131.5	128.7	126.0
60°	124.5	123.1	123.1	122.5	121.1	120.3	118.9	116.9	114.8	112.0	109.9
62.5°	109.2	108.5	107.8	107.1	105.8	105.0	104.3	102.3	100.1	98.1	96.0
65°	94.6	94.6	93.9	92.5	91.8	91.2	90.5	89.0	86.3	84.8	82.8
67.5°	81.4	80.7	80.7	79.3	77.9	77.2	77.2	75.9	73.7	71.7	70.3
70°	68.1	68.8	68.1	67.5	66.1	66.1	64.6	64.1	61.2	60.5	58.4
72.5°	56.4	56.4	55.7	55.7	54.3	53.5	53.5	52.2	50.8	49.4	48.0
75°	45.2	45.2	45.2	44.6	43.9	42.4	42.4	41.7	40.4	39.0	37.5
77.5°	35.5	34.8	34.8	34.1	33.3	32.7	32.7	32.0	30.6	29.9	28.6
80°	25.7	25.1	25.1	25.1	23.7	24.4	23.7	22.9	22.2	21.5	20.9
82.5°	16.7	17.4	17.4	16.7	16.0	16.0	16.0	15.3	15.3	14.6	13.9
85°	9.7	9.7	9.7	9.7	9.1	9.1	9.1	8.4	8.4	8.4	7.6
87.5°	4.2	4.2	4.2	4.2	4.2	4.2	3.5	3.5	3.5	3.5	3.5
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°	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7
2.5°	518.3	516.8	516.1	515.5	515.5	514.8	514.1	512.7	512.7	511.3	510.6
5°	521.0	519.0	517.6	516.1	515.5	514.1	512.7	510.6	509.9	507.9	505.7
7.5°	521.7	518.3	516.8	514.1	512.7	511.3	508.5	506.4	503.7	501.5	498.8
10°	519.0	516.1	512.7	509.2	508.5	506.4	502.3	499.5	496.0	493.2	489.0
12.5°	514.8	510.6	507.2	503.0	500.8	498.8	494.6	490.4	485.5	480.7	476.6
15°	507.9	503.0	498.1	493.2	490.4	488.4	483.5	478.6	473.7	467.5	463.3
17.5°	497.4	491.9	487.0	480.7	477.9	475.8	469.5	464.0	457.7	451.5	447.3
20°	484.2	477.2	471.7	464.7	462.6	459.1	452.9	446.6	439.6	432.7	427.8
22.5°	466.8	459.8	453.6	446.6	443.1	439.6	433.4	425.8	418.7	413.2	408.3
25°	446.6	440.4	432.7	426.5	422.3	418.1	411.1	404.9	398.7	390.3	385.4
27.5°	424.3	416.7	411.1	402.8	398.7	395.8	388.1	379.8	374.3	366.6	361.0
30°	399.2	392.3	386.1	377.7	373.6	370.8	363.9	356.2	350.6	343.0	337.3
32.5°	372.8	365.2	357.5	352.0	347.1	344.4	336.8	331.9	324.9	318.6	312.4
35°	344.4	336.8	331.1	323.5	320.7	317.9	311.7	305.4	299.1	293.6	288.7
37.5°	313.7	308.2	301.9	296.4	294.2	291.5	283.8	278.3	273.4	267.8	263.6
40°	283.8	278.9	274.7	269.2	265.8	263.6	258.1	253.2	247.6	244.1	240.0
42.5°	256.7	251.2	247.0	242.8	239.4	237.2	232.3	228.8	224.7	221.2	216.3
45°	228.1	225.4	220.5	217.0	215.0	212.2	208.6	204.5	201.0	198.3	194.8
47.5°	203.2	200.4	196.8	192.8	191.3	189.2	185.7	183.0	180.2	177.3	173.9
50°	180.2	176.7	173.9	171.1	169.7	167.7	164.2	162.8	160.7	157.9	155.8
52.5°	159.3	156.5	153.8	150.2	149.6	148.2	146.0	143.3	141.2	139.8	138.4
55°	140.5	137.8	135.6	132.9	132.2	130.7	128.0	126.6	125.2	123.8	122.5
57.5°	123.8	121.1	118.3	116.9	115.4	114.1	113.4	111.3	109.9	109.2	107.8
60°	108.5	105.8	103.6	101.6	100.9	100.1	98.8	97.4	96.0	94.6	93.9
62.5°	93.9	91.2	89.7	88.3	87.0	87.0	85.6	84.1	82.8	82.1	80.7
65°	80.7	79.3	77.2	75.2	74.4	74.4	72.3	71.7	71.0	69.5	68.1
67.5°	68.1	66.8	64.6	64.1	63.3	62.6	61.9	60.5	59.2	58.4	57.0
70°	57.0	55.7	54.3	53.5	52.8	52.2	50.8	50.1	48.6	48.0	47.3
72.5°	45.9	45.2	43.9	43.1	42.4	41.7	41.0	40.4	39.0	38.2	37.5
75°	36.9	36.2	34.8	34.1	33.3	33.3	32.7	31.3	30.6	30.6	29.9
77.5°	27.8	27.1	26.4	25.7	25.1	25.1	24.4	23.7	22.9	22.9	22.2
80°	20.2	19.5	18.8	18.8	18.8	18.0	17.4	17.4	16.7	16.7	16.0
82.5°	13.3	13.3	12.5	12.5	12.5	11.8	11.8	11.1	11.1	11.1	11.1
85°	7.6	7.6	7.6	6.9	6.9	6.9	6.9	6.9	6.9	6.2	6.9
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.7	2.7	2.7
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°	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7
2.5°	509.9	509.2	507.9	507.9	506.4	506.4	505.7	505.0	504.4	503.7	503.0
5°	505.0	502.3	500.8	500.2	498.8	498.1	496.0	494.6	493.9	492.6	491.1
7.5°	496.0	493.2	490.4	489.7	489.0	486.2	484.2	482.1	480.7	479.3	477.9
10°	485.5	482.8	479.3	477.9	476.6	473.1	470.2	468.2	465.5	462.6	461.9
12.5°	473.1	468.9	464.7	463.3	461.3	457.7	454.9	451.5	449.4	446.0	445.3
15°	458.4	453.6	450.0	446.6	445.3	441.8	436.9	434.1	430.0	428.5	425.1
17.5°	441.1	436.2	431.3	430.0	427.8	422.9	418.1	414.7	410.5	408.3	406.3
20°	422.9	416.7	411.8	410.5	407.6	403.4	398.7	395.2	391.6	387.5	385.4
22.5°	402.1	395.2	391.0	387.5	386.8	381.9	376.3	373.6	370.8	367.3	364.5
25°	379.2	372.8	368.1	365.2	363.9	359.7	355.5	352.0	347.9	345.7	342.2
27.5°	355.5	351.3	345.0	342.2	340.2	336.8	331.9	329.7	325.5	322.8	320.7
30°	332.6	326.2	322.8	319.3	317.3	313.7	309.6	307.5	304.0	301.3	299.1
32.5°	307.5	303.3	298.4	297.1	294.2	290.7	288.0	284.5	281.8	278.9	278.3
35°	284.5	278.9	274.1	272.7	270.7	267.1	265.8	263.6	260.2	259.4	256.7
37.5°	259.4	256.7	251.2	249.0	248.3	245.6	242.8	241.4	239.4	237.2	236.5
40°	235.8	232.3	229.6	227.5	226.1	223.9	221.2	220.5	219.2	216.3	215.7
42.5°	213.5	210.1	207.3	206.6	204.5	202.4	201.0	199.0	198.3	197.5	196.2
45°	192.0	189.9	187.1	186.4	185.7	183.0	181.5	180.2	178.8	178.1	176.7
47.5°	172.6	170.4	168.4	167.7	166.2	165.5	163.5	162.8	160.7	160.0	159.3
50°	153.8	152.4	150.9	150.2	148.9	148.2	146.7	145.4	144.0	143.3	142.6
52.5°	137.1	135.6	134.3	133.6	132.9	131.5	130.1	128.7	128.0	127.3	126.6
55°	121.1	119.6	118.9	118.3	117.6	116.9	114.8	114.1	113.4	112.7	111.3
57.5°	106.5	105.0	103.6	103.6	103.0	102.3	100.9	99.4	99.4	98.1	96.7
60°	93.2	91.8	90.5	89.7	89.0	87.6	87.0	86.3	85.6	84.8	83.5
62.5°	79.3	78.6	77.2	77.2	75.9	75.2	74.4	73.7	73.0	71.7	71.0
65°	67.5	66.8	65.4	64.6	64.6	64.1	62.6	61.9	61.2	61.2	60.5
67.5°	56.4	55.7	54.3	53.5	53.5	52.8	52.2	52.2	51.5	50.8	51.5
70°	46.6	45.2	45.2	44.6	44.6	43.9	43.1	43.1	43.1	43.9	43.9
72.5°	36.9	36.2	35.5	35.5	35.5	35.5	34.8	34.8	35.5	36.2	36.2
75°	29.2	28.6	28.6	28.6	27.8	27.8	28.6	28.6	29.2	29.2	29.2
77.5°	21.5	21.5	21.5	21.5	21.5	21.5	22.2	22.2	22.9	22.9	22.9
80°	16.0	16.0	16.0	16.0	16.0	16.7	16.7	16.7	16.7	16.7	17.4
82.5°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.8	11.8	11.8	11.8
85°	6.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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: P593497

CATALOG NUMBER: HC807D010-HM80520850-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	512.7	512.7	512.7	512.7	512.7	512.7	512.7	512.7
2.5°	502.3	502.3	502.3	503.0	501.5	501.5	501.5	501.5
5°	490.4	489.7	489.0	489.7	488.4	488.4	487.7	487.7
7.5°	475.8	475.1	474.4	474.4	473.1	473.1	472.4	471.7
10°	459.8	458.4	459.1	457.7	457.1	456.4	455.7	454.9
12.5°	442.4	441.1	440.4	438.9	437.6	436.9	437.6	436.2
15°	423.6	421.6	420.9	419.4	418.1	417.4	417.4	416.7
17.5°	402.8	401.4	400.7	399.2	398.7	397.2	396.5	395.8
20°	383.4	379.8	380.5	379.2	378.5	375.7	375.7	376.3
22.5°	361.7	359.7	358.3	356.8	356.2	354.8	354.8	354.1
25°	340.2	338.1	337.3	336.0	335.3	333.9	333.2	333.2
27.5°	319.3	316.6	316.6	315.1	313.7	313.1	312.4	311.7
30°	297.1	294.9	294.2	294.2	293.6	293.6	291.5	292.2
32.5°	276.2	274.7	274.1	272.7	272.7	272.0	272.0	270.0
35°	255.3	253.2	253.9	252.5	251.8	251.2	251.8	251.2
37.5°	235.2	233.7	233.7	232.3	232.3	231.7	231.0	232.3
40°	215.0	214.3	213.5	212.8	213.5	212.8	211.5	212.2
42.5°	194.8	194.8	194.1	194.1	193.4	193.4	193.4	193.4
45°	176.7	176.0	176.0	175.3	175.3	175.3	175.3	174.6
47.5°	158.6	157.9	157.9	157.9	157.3	157.3	156.5	157.3
50°	141.2	141.2	140.5	140.5	141.2	140.5	139.8	139.8
52.5°	125.2	125.2	124.5	124.5	123.8	123.1	123.8	123.8
55°	110.7	109.9	109.2	109.2	108.5	107.8	107.8	108.5
57.5°	96.7	96.0	95.4	95.4	93.9	93.2	93.2	93.2
60°	83.5	82.1	82.1	81.4	81.4	80.7	80.7	80.7
62.5°	71.0	70.3	70.3	70.3	70.3	69.5	69.5	69.5
65°	60.5	60.5	60.5	61.2	61.2	61.9	61.9	61.9
67.5°	52.2	52.8	52.8	52.8	53.5	53.5	53.5	52.8
70°	44.6	44.6	44.6	45.2	45.2	45.2	45.2	45.2
72.5°	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9
75°	29.2	29.9	29.9	29.9	29.2	29.9	29.9	29.2
77.5°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
80°	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
82.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
85°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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)