

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: P583626

Luminaire Tested: **HC807D010-HM80520840-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520840-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 985.2 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

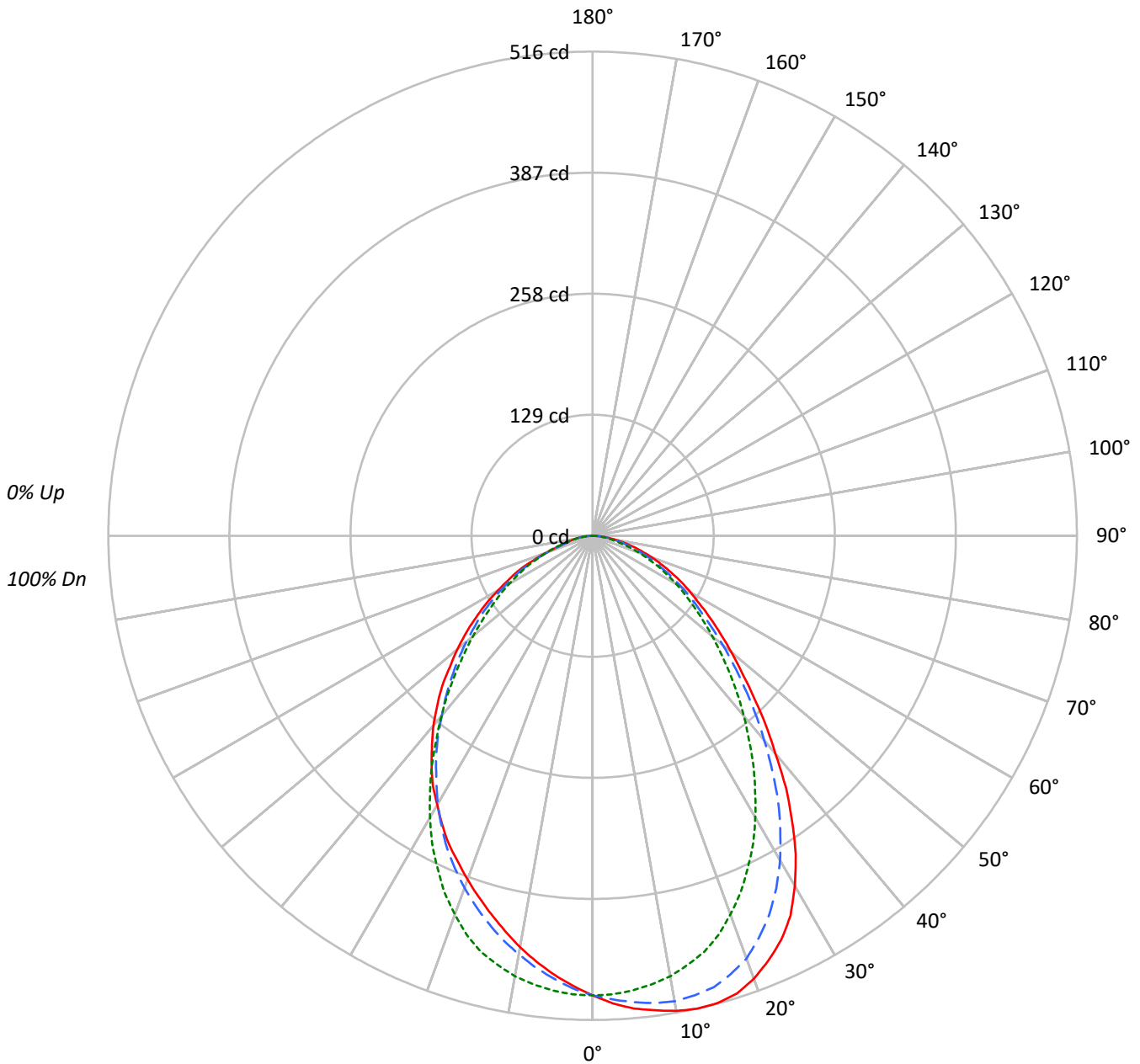
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	91	89	87																			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57																			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50																			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	15104	15104	15104
5°	15657	15056	14536
10°	16101	14923	13943
15°	16457	14660	13325
20°	16486	14084	12788
25°	16172	13303	12337
30°	15336	12341	11789
35°	13936	11237	11263
40°	12185	10084	10615
45°	10558	8979	9891
50°	9249	7978	9014
55°	8231	7070	8150
60°	7419	6352	7166
65°	6705	5582	6246
70°	6023	4706	4643
75°	5314	3729	3491
80°	4457	3090	3338
85°	3467	2689	2972



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	4.7
10°-20°	130.2	13.2
20°-30°	186.0	18.9
30°-40°	197.6	20.1
40°-50°	170.2	17.3
50°-60°	127.2	12.9
60°-70°	81.1	8.2
70°-80°	36.9	3.7
80°-90°	9.7	1.0
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°	362.4	36.8
0°-40°	560.0	56.8
0°-60°	857.4	87.0
0°-90°	985.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	985.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	490	490	490	490	490	
5°	506	499	486	474	470	48
15°	516	498	459	428	417	145
25°	475	445	391	367	363	218
35°	370	344	298	291	299	231
45°	242	229	206	212	227	188
55°	153	140	132	143	152	138
65°	92	81	76	80	86	92
75°	45	38	31	29	29	47
85°	10	8	8	8	8	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°	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8
2.5°	498.9	497.5	498.2	497.5	498.2	498.2	496.8	496.8	496.8	496.8	494.7
5°	505.8	505.1	505.1	504.4	503.7	504.4	503.7	503.1	501.7	500.9	498.9
7.5°	510.0	510.0	510.0	510.0	509.3	508.6	507.9	506.6	505.1	503.7	502.4
10°	514.2	514.9	514.2	513.5	512.8	511.5	510.7	509.3	507.3	505.1	503.7
12.5°	516.2	516.2	515.5	515.5	514.2	513.5	511.5	509.3	507.3	505.1	501.7
15°	515.5	515.5	514.9	514.2	512.1	511.5	510.0	507.9	504.4	501.7	498.2
17.5°	511.5	510.7	509.3	509.3	506.6	505.8	504.4	501.7	498.2	494.0	489.8
20°	502.4	502.4	501.7	500.9	498.2	496.0	494.7	491.3	488.4	483.6	479.4
22.5°	489.8	491.3	489.8	488.4	484.9	484.2	482.2	478.0	473.8	468.3	463.4
25°	475.3	474.5	473.8	472.4	469.6	468.3	465.5	461.3	457.1	450.9	445.3
27.5°	456.5	453.6	453.6	450.9	448.7	446.7	445.3	441.1	435.6	430.7	423.7
30°	430.7	431.4	427.9	427.2	423.7	422.3	419.6	415.4	410.5	405.0	399.4
32.5°	402.8	400.8	400.8	397.9	395.2	393.2	392.4	387.5	383.4	377.9	372.2
35°	370.2	370.2	368.1	367.3	364.6	363.2	361.1	358.4	353.5	348.6	344.4
37.5°	338.2	336.8	336.0	334.7	332.6	330.5	330.5	325.6	324.9	319.4	313.8
40°	302.7	304.0	302.7	300.5	299.8	298.5	297.8	295.0	292.9	288.0	284.5
42.5°	272.7	271.4	271.4	270.7	267.9	267.9	266.5	265.1	261.6	260.3	256.1
45°	242.1	243.5	241.4	242.1	239.4	239.4	239.4	236.6	233.7	231.7	229.0
47.5°	215.7	216.4	216.4	214.3	213.5	213.5	212.2	210.8	208.8	205.9	203.9
50°	192.8	193.5	192.0	191.3	190.0	189.3	189.3	186.4	185.1	182.2	180.9
52.5°	171.8	171.8	171.1	171.1	169.1	169.1	167.7	165.6	164.2	162.8	159.3
55°	153.1	153.1	152.4	151.6	151.6	149.6	148.9	146.9	145.4	142.7	140.5
57.5°	135.0	135.6	135.0	134.3	133.6	132.9	131.5	129.4	128.0	126.0	124.5
60°	120.3	120.3	119.6	119.0	117.6	116.9	116.2	114.8	112.7	111.4	109.2
62.5°	106.5	105.8	105.0	104.3	103.0	103.0	101.6	100.1	98.1	96.7	95.4
65°	91.9	91.9	91.2	91.2	90.5	89.0	88.3	87.7	84.8	84.2	81.4
67.5°	78.6	79.3	77.9	77.9	76.5	76.5	75.9	73.7	73.0	71.7	70.3
70°	66.8	66.8	66.8	66.1	64.6	64.1	63.3	61.9	61.2	59.9	58.4
72.5°	55.0	55.0	54.3	54.3	53.5	52.9	52.2	50.8	50.8	49.4	48.0
75°	44.6	44.6	43.9	43.1	42.4	42.4	41.7	41.1	39.7	39.0	38.2
77.5°	34.1	34.1	34.1	33.3	32.7	32.7	32.7	31.3	29.9	29.9	29.3
80°	25.1	25.1	24.4	24.4	23.7	23.7	23.7	22.9	22.2	21.5	20.9
82.5°	16.7	16.7	16.7	16.7	16.0	16.0	16.0	15.3	14.6	14.6	14.6
85°	9.8	9.8	9.8	9.8	9.1	9.1	9.1	9.1	9.1	8.4	8.4
87.5°	4.2	3.5	4.2	3.5	4.2	3.5	4.2	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°	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8
2.5°	495.4	494.7	494.0	493.3	493.3	492.6	491.3	490.5	489.8	489.1	489.1
5°	498.2	497.5	496.0	494.7	494.0	492.6	491.3	489.8	488.4	486.4	485.6
7.5°	500.2	498.2	496.8	494.0	493.3	491.9	489.8	487.8	484.9	482.2	480.0
10°	500.2	497.5	495.4	491.9	490.5	489.1	486.4	482.9	479.4	476.6	473.1
12.5°	498.9	495.4	491.9	488.4	486.4	484.2	480.0	476.6	472.4	468.3	465.5
15°	494.0	489.8	485.6	481.5	479.4	476.6	472.4	467.6	463.4	459.2	454.3
17.5°	484.9	480.7	476.0	471.1	468.3	466.2	460.0	456.5	450.2	446.0	441.8
20°	473.1	468.3	462.0	457.1	453.6	451.6	446.7	440.5	435.6	429.2	425.2
22.5°	457.8	451.6	445.3	440.5	437.0	434.1	427.9	421.6	417.4	411.9	407.0
25°	439.8	433.4	427.2	420.3	416.8	413.9	408.5	402.8	397.3	391.0	386.8
27.5°	418.1	411.2	405.6	399.4	395.9	391.7	385.5	379.9	374.3	370.2	364.6
30°	394.5	386.8	381.3	375.0	371.5	368.1	361.8	356.2	351.3	346.6	343.7
32.5°	366.0	360.4	354.8	348.6	345.8	343.7	337.5	331.9	326.4	322.2	320.0
35°	338.9	332.6	327.7	322.2	318.7	316.6	311.1	306.2	303.4	298.5	295.8
37.5°	310.3	305.4	299.8	294.3	292.2	290.1	286.0	281.1	276.9	273.4	272.1
40°	280.3	276.3	271.4	267.9	265.8	263.7	260.3	256.7	253.9	250.5	249.0
42.5°	251.9	249.0	245.0	240.8	238.6	237.9	233.7	231.0	229.6	228.2	226.8
45°	226.1	221.9	219.2	216.4	214.3	212.9	210.8	208.8	207.3	205.9	204.6
47.5°	201.1	197.7	194.8	192.8	190.6	190.0	188.6	186.4	185.1	185.1	185.1
50°	178.2	175.3	172.6	171.1	170.5	169.1	167.7	166.9	166.3	166.3	166.3
52.5°	158.0	155.1	153.1	151.6	151.6	150.3	148.9	148.2	148.2	148.2	148.2
55°	139.1	137.1	135.6	134.3	132.9	132.2	132.2	132.2	131.5	131.5	132.2
57.5°	122.5	121.1	119.0	117.6	116.9	116.9	116.2	115.6	116.2	116.9	117.6
60°	107.2	105.8	105.0	103.0	103.0	103.0	102.3	102.3	102.3	103.0	103.7
62.5°	93.2	92.5	91.2	90.5	89.7	89.7	89.0	89.0	89.0	89.0	89.7
65°	80.7	79.3	77.9	77.9	77.9	77.2	77.2	75.9	76.5	76.5	75.9
67.5°	68.8	67.5	66.8	66.1	65.4	65.4	64.6	64.1	63.3	63.3	63.3
70°	57.7	56.4	56.4	55.0	55.0	54.3	53.5	53.5	52.9	52.2	51.5
72.5°	46.6	45.9	45.2	44.6	44.6	44.6	43.9	43.1	42.4	41.7	40.4
75°	36.9	36.9	35.5	34.8	34.8	34.1	33.3	32.7	32.0	31.3	30.6
77.5°	28.6	27.8	26.4	25.7	25.7	25.7	25.1	24.4	23.7	22.9	22.2
80°	20.9	20.2	19.5	18.8	18.8	18.8	18.0	18.0	17.4	17.4	17.4
82.5°	13.9	13.9	13.3	13.3	13.3	13.3	12.5	12.5	12.5	12.5	12.5
85°	8.4	8.4	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8
2.5°	487.8	487.8	486.4	485.6	484.9	485.6	484.2	483.6	482.9	482.9	482.2
5°	483.6	482.9	480.0	479.4	478.7	478.0	476.6	475.3	473.8	473.1	472.4
7.5°	478.0	476.0	473.1	472.4	471.8	469.6	467.6	466.2	464.1	463.4	462.0
10°	470.4	467.6	465.5	463.4	462.0	460.0	457.8	455.8	452.9	452.3	450.2
12.5°	461.3	457.8	453.6	452.9	450.9	448.1	445.3	443.2	441.1	439.8	437.6
15°	450.2	446.7	442.5	440.5	438.3	436.3	432.8	430.0	427.9	425.8	423.7
17.5°	437.0	432.8	429.2	427.2	425.8	422.3	419.6	416.1	413.9	411.9	409.8
20°	421.0	417.4	412.6	410.5	409.8	407.0	403.6	402.1	399.4	397.3	395.9
22.5°	402.8	399.4	395.2	393.9	391.0	389.7	386.1	384.8	383.4	381.3	380.6
25°	382.6	379.2	375.7	375.0	373.0	371.5	369.5	367.3	367.3	365.3	365.3
27.5°	361.8	358.4	355.5	354.2	353.5	352.0	350.0	349.3	348.6	347.9	347.9
30°	339.5	335.3	334.0	333.3	332.6	331.1	330.5	329.1	329.8	330.5	329.8
32.5°	315.8	314.5	311.7	310.3	311.1	310.3	308.9	310.3	309.6	311.1	311.7
35°	292.9	291.6	290.1	290.1	288.7	288.7	288.7	289.4	290.9	291.6	292.9
37.5°	270.7	268.5	267.9	267.2	267.9	267.9	267.9	269.2	270.7	272.1	274.1
40°	247.0	245.6	245.6	245.6	245.6	247.7	247.0	248.4	249.8	251.9	253.9
42.5°	224.8	224.8	225.4	225.4	225.4	225.4	226.8	229.0	231.0	233.1	235.2
45°	203.9	203.9	203.9	205.3	205.3	205.9	208.8	210.1	211.5	213.5	215.7
47.5°	184.4	184.4	185.1	185.8	186.4	187.9	189.3	191.3	193.5	194.8	196.9
50°	166.3	166.9	168.4	169.8	169.8	170.5	172.6	174.0	175.3	177.5	178.2
52.5°	148.9	150.3	151.6	152.4	153.1	154.5	155.1	157.3	158.0	160.0	160.7
55°	132.9	133.6	135.6	136.3	136.3	137.8	139.1	140.5	142.7	142.7	144.0
57.5°	118.3	119.0	120.3	121.1	120.3	122.5	123.2	124.5	125.2	126.7	127.4
60°	103.7	105.0	105.8	105.8	106.5	107.2	108.5	108.5	109.9	111.4	111.4
62.5°	89.7	90.5	91.2	91.9	92.5	91.9	93.9	93.9	95.4	96.0	97.4
65°	76.5	77.2	77.2	77.9	77.9	78.6	78.6	79.3	80.1	81.4	82.1
67.5°	63.3	63.3	63.3	64.1	63.3	64.1	64.1	64.6	64.6	66.1	66.8
70°	51.5	50.8	50.1	50.1	50.1	50.1	49.4	50.1	50.1	50.8	50.8
72.5°	39.7	39.0	38.2	37.5	37.5	36.9	36.2	36.9	36.9	37.5	37.5
75°	29.9	28.6	28.6	28.6	27.8	27.8	27.8	28.6	28.6	28.6	29.3
77.5°	22.2	22.2	21.5	21.5	21.5	22.2	22.2	22.9	22.9	22.9	22.9
80°	16.7	17.4	17.4	17.4	17.4	18.0	18.0	18.0	18.0	18.8	18.8
82.5°	12.5	12.5	12.5	12.5	13.3	13.3	13.3	13.3	13.3	13.3	13.3
85°	7.6	8.4	8.4	7.6	8.4	8.4	8.4	8.4	8.4	8.4	8.4
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	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



TEST NUMBER: P583626

CATALOG NUMBER: HC807D010-HM80520840-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8
2.5°	481.5	481.5	481.5	481.5	480.7	480.7	480.7	480.0
5°	471.1	471.1	471.1	469.6	470.4	470.4	468.9	469.6
7.5°	460.6	460.0	459.2	459.2	458.5	457.8	457.1	457.8
10°	448.7	446.7	446.7	446.0	446.0	444.7	444.7	445.3
12.5°	435.6	434.1	434.1	433.4	432.8	432.1	431.4	431.4
15°	422.3	421.0	420.3	419.6	418.8	417.4	418.1	417.4
17.5°	409.2	407.0	407.0	406.3	405.6	404.3	404.3	403.6
20°	393.9	393.2	391.7	392.4	391.7	390.3	389.7	389.7
22.5°	378.5	378.5	377.9	377.9	377.1	376.4	375.7	375.7
25°	363.9	363.2	363.9	363.9	361.8	361.8	361.8	362.6
27.5°	347.1	347.9	347.1	347.1	347.1	347.1	347.9	347.1
30°	330.5	330.5	330.5	331.1	332.6	331.9	331.9	331.1
32.5°	312.4	313.1	313.1	313.8	314.5	315.8	315.8	316.6
35°	294.3	295.8	296.4	295.8	297.8	297.8	299.2	299.2
37.5°	275.6	276.3	277.6	278.3	279.7	280.3	281.1	281.1
40°	255.4	258.1	258.8	259.6	261.6	261.6	262.3	263.7
42.5°	236.6	239.4	240.1	240.8	242.1	244.3	243.5	245.0
45°	218.4	220.6	221.3	221.9	224.1	224.8	224.8	226.8
47.5°	199.0	200.4	201.1	202.4	203.9	205.3	206.6	205.9
50°	179.5	181.6	183.0	183.7	185.8	186.4	187.1	187.9
52.5°	162.2	163.5	164.2	164.9	166.9	167.7	168.4	169.8
55°	145.4	146.1	147.5	146.9	148.9	149.6	150.3	151.6
57.5°	128.7	129.4	130.1	130.1	131.5	132.9	133.6	134.3
60°	112.7	114.1	114.8	114.8	114.8	116.2	116.2	116.2
62.5°	98.1	98.1	98.8	98.8	100.1	100.1	100.1	100.1
65°	82.8	83.5	84.2	84.2	85.6	84.8	86.3	85.6
67.5°	66.8	66.8	68.2	68.2	67.5	68.2	68.2	68.2
70°	50.8	50.8	51.5	51.5	51.5	51.5	51.5	51.5
72.5°	37.5	37.5	37.5	38.2	37.5	37.5	38.2	37.5
75°	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
77.5°	22.9	22.9	23.7	23.7	23.7	23.7	23.7	23.7
80°	18.8	18.8	18.8	18.8	19.5	18.8	18.8	18.8
82.5°	13.9	13.3	13.9	13.3	13.9	13.9	13.9	13.9
85°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
87.5°	3.5	3.5	3.5	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



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













(END OF REPORT)