

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: P583676

Luminaire Tested: **HC807D010-HM80520935-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583676
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-HM80520935-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 808.3 lumens
Efficiency: N/A
Efficacy: 101.0 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

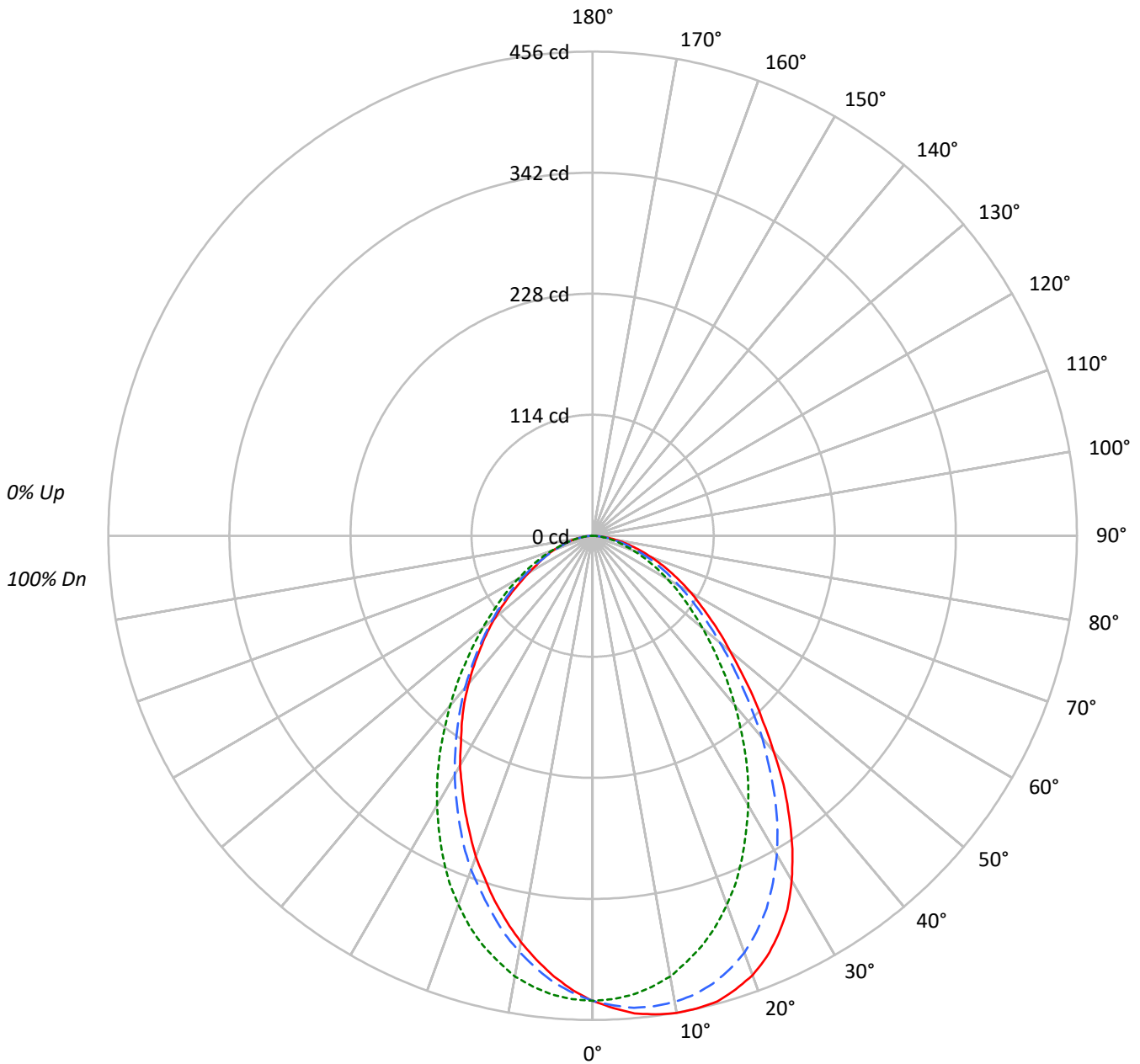
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583676

CATALOG NUMBER: HC807D010-HM80520935-81WWW

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°	13506	13506	13506
5°	13979	13428	12895
10°	14291	13195	12168
15°	14494	12750	11365
20°	14452	12129	10550
25°	14093	11344	9683
30°	13353	10433	8887
35°	12148	9441	8075
40°	10671	8393	7298
45°	9302	7383	6502
50°	8093	6472	5733
55°	7220	5688	4984
60°	6562	4983	4255
65°	5896	4334	3860
70°	5247	3697	3480
75°	4599	3122	2979
80°	3907	2522	2628
85°	2972	1911	2123



TEST NUMBER: P583676

CATALOG NUMBER: HC807D010-HM80520935-81WWW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	5.1
10°-20°	113.0	14.0
20°-30°	156.9	19.4
30°-40°	162.2	20.1
40°-50°	135.8	16.8
50°-60°	98.6	12.2
60°-70°	62.2	7.7
70°-80°	30.8	3.8
80°-90°	7.7	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°	310.9	38.5
0°-40°	473.2	58.5
0°-60°	707.6	87.5
0°-90°	808.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	438	438	438	438	438	
5°	452	446	434	422	417	43
15°	454	437	399	367	356	128
25°	414	387	333	297	285	190
35°	323	299	251	222	214	201
45°	213	198	169	153	149	165
55°	134	122	106	97	93	121
65°	81	71	59	52	53	81
75°	39	32	26	25	25	41
85°	8	7	5	6	6	10
90°	0	0	0	0	0	



TEST NUMBER: P583676

CATALOG NUMBER: HC807D010-HM80520935-81WWW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0
2.5°	445.1	445.1	445.7	445.1	445.1	445.1	444.5	444.5	443.9	443.9	442.7
5°	451.6	450.4	451.6	450.4	450.4	450.4	449.8	448.6	448.0	446.9	446.3
7.5°	454.6	454.0	454.0	453.4	453.4	452.8	452.2	451.6	449.2	448.6	446.9
10°	456.4	455.8	455.8	455.2	454.0	454.0	452.8	452.2	449.2	448.0	445.7
12.5°	455.8	455.8	455.8	455.2	453.4	452.8	451.6	449.8	447.4	445.1	442.7
15°	454.0	454.0	452.8	452.2	450.4	449.2	448.6	445.7	443.3	440.4	436.8
17.5°	448.0	448.0	447.4	446.3	444.5	443.3	442.2	439.2	436.8	432.0	428.4
20°	440.4	439.8	439.2	437.4	435.6	435.0	433.2	429.0	426.0	422.6	417.8
22.5°	429.0	428.4	427.8	426.6	423.7	422.6	421.4	418.4	413.0	409.4	403.6
25°	414.2	414.2	413.0	411.2	408.2	407.0	405.2	402.4	397.6	392.2	387.4
27.5°	397.0	396.4	394.6	393.4	391.0	389.2	386.2	382.6	378.0	373.8	367.8
30°	375.0	375.0	373.8	372.0	369.0	367.8	365.4	361.2	356.6	351.2	347.0
32.5°	350.0	350.0	348.2	347.0	345.2	342.2	341.7	337.0	332.8	328.6	323.8
35°	322.7	323.2	322.1	319.7	316.7	316.7	315.6	311.4	306.6	302.5	298.9
37.5°	295.3	293.6	293.0	291.8	290.0	287.6	286.4	284.6	280.5	277.5	272.2
40°	265.1	265.6	264.5	263.3	262.7	260.9	260.3	257.3	254.3	250.8	248.4
42.5°	237.7	237.7	237.7	236.5	235.3	233.5	232.9	231.1	227.6	225.3	221.7
45°	213.3	211.5	211.5	210.9	210.3	209.1	207.3	206.3	203.9	202.1	197.9
47.5°	189.5	190.1	189.5	188.9	187.1	186.5	185.9	183.7	181.3	179.5	176.5
50°	168.7	169.9	168.7	168.7	167.5	166.9	165.7	164.0	162.3	159.3	156.3
52.5°	151.5	151.5	150.9	150.3	148.5	147.3	146.7	146.1	143.2	140.9	138.5
55°	134.3	134.9	134.9	133.1	132.5	131.3	130.7	128.9	127.7	124.2	122.4
57.5°	119.5	118.9	119.5	118.3	117.1	115.9	115.3	114.1	112.3	109.9	107.6
60°	106.4	105.2	105.2	104.6	103.4	102.8	101.6	99.8	98.1	95.7	93.9
62.5°	93.3	92.7	92.1	91.5	90.3	89.7	89.1	87.4	85.6	83.8	82.0
65°	80.8	80.8	80.2	79.0	78.4	77.8	77.2	76.1	73.7	72.5	70.7
67.5°	69.5	69.0	69.0	67.8	66.6	66.0	66.0	64.8	63.0	61.2	60.0
70°	58.2	58.8	58.2	57.6	56.4	56.4	55.2	54.6	52.3	51.7	50.0
72.5°	48.2	48.2	47.6	47.6	46.4	45.8	45.8	44.6	43.4	42.2	41.0
75°	38.6	38.6	38.6	38.0	37.4	36.2	36.2	35.6	34.4	33.2	32.1
77.5°	30.4	29.8	29.8	29.2	28.6	28.0	28.0	27.4	26.2	25.6	24.4
80°	22.0	21.4	21.4	21.4	20.2	20.8	20.2	19.6	19.0	18.4	17.8
82.5°	14.2	14.8	14.8	14.2	13.6	13.6	13.6	13.0	13.0	12.4	11.8
85°	8.4	8.4	8.4	8.4	7.8	7.8	7.8	7.2	7.2	7.2	6.6
87.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.0	3.0	3.0	3.0	3.0
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: P583676

CATALOG NUMBER: HC807D010-HM80520935-81WWW

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0
2.5°	442.7	441.6	441.0	440.4	440.4	439.8	439.2	438.0	438.0	436.8	436.2
5°	445.1	443.3	442.2	441.0	440.4	439.2	438.0	436.2	435.6	433.8	432.0
7.5°	445.7	442.7	441.6	439.2	438.0	436.8	434.4	432.6	430.2	428.4	426.0
10°	443.3	441.0	438.0	435.0	434.4	432.6	429.0	426.6	423.7	421.4	417.8
12.5°	439.8	436.2	433.2	429.6	427.8	426.0	422.6	419.0	414.8	410.6	407.0
15°	433.8	429.6	425.4	421.4	419.0	417.2	413.0	408.8	404.6	399.4	395.8
17.5°	424.9	420.2	416.0	410.6	408.2	406.4	401.2	396.4	391.0	385.6	382.0
20°	413.6	407.6	403.0	397.0	395.2	392.2	386.8	381.6	375.6	369.6	365.4
22.5°	398.8	392.8	387.4	381.6	378.6	375.6	370.2	363.6	357.8	353.0	348.8
25°	381.6	376.2	369.6	364.2	360.7	357.2	351.2	345.8	340.5	333.4	329.2
27.5°	362.4	356.0	351.2	344.0	340.5	338.2	331.6	324.4	319.7	313.2	308.4
30°	341.1	335.2	329.8	322.7	319.1	316.7	310.8	304.2	299.5	293.0	288.2
32.5°	318.5	312.0	305.4	300.7	296.5	294.2	287.6	283.5	277.5	272.2	266.8
35°	294.2	287.6	282.9	276.3	273.9	271.6	266.2	260.9	255.5	250.8	246.6
37.5°	268.0	263.3	257.9	253.1	251.3	249.0	242.5	237.7	233.5	228.8	225.3
40°	242.5	238.3	234.7	229.9	227.0	225.3	220.5	216.3	211.5	208.5	205.1
42.5°	219.3	214.5	210.9	207.3	204.5	202.7	198.5	195.5	191.9	188.9	184.9
45°	194.9	192.5	188.3	185.5	183.7	181.3	178.3	174.7	171.7	169.3	166.3
47.5°	173.5	171.1	168.1	164.6	163.5	161.7	158.7	156.3	153.9	151.5	148.5
50°	153.9	150.9	148.5	146.1	145.0	143.2	140.3	139.1	137.3	134.9	133.1
52.5°	136.1	133.7	131.3	128.3	127.7	126.6	124.8	122.4	120.6	119.5	118.3
55°	120.0	117.7	115.9	113.5	112.9	111.7	109.3	108.1	107.0	105.8	104.6
57.5°	105.8	103.4	101.0	99.8	98.6	97.5	96.9	95.1	93.9	93.3	92.1
60°	92.7	90.3	88.5	86.8	86.2	85.6	84.4	83.2	82.0	80.8	80.2
62.5°	80.2	77.8	76.6	75.5	74.3	74.3	73.1	71.9	70.7	70.1	69.0
65°	69.0	67.8	66.0	64.2	63.6	63.6	61.8	61.2	60.6	59.4	58.2
67.5°	58.2	57.0	55.2	54.6	54.1	53.5	52.9	51.7	50.5	50.0	48.8
70°	48.8	47.6	46.4	45.8	45.2	44.6	43.4	42.8	41.6	41.0	40.4
72.5°	39.2	38.6	37.4	36.8	36.2	35.6	35.0	34.4	33.2	32.7	32.1
75°	31.5	31.0	29.8	29.2	28.6	28.6	28.0	26.8	26.2	26.2	25.6
77.5°	23.8	23.2	22.6	22.0	21.4	21.4	20.8	20.2	19.6	19.6	19.0
80°	17.2	16.6	16.0	16.0	16.0	15.4	14.8	14.8	14.2	14.2	13.6
82.5°	11.2	11.2	10.8	10.8	10.8	10.2	10.2	9.6	9.6	9.6	9.6
85°	6.6	6.6	6.6	6.0	6.0	6.0	6.0	6.0	6.0	5.4	6.0
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.4	2.4	2.4
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: P583676

CATALOG NUMBER: HC807D010-HM80520935-81WWW

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0
2.5°	435.6	435.0	433.8	433.8	432.6	432.6	432.0	431.4	430.8	430.2	429.6
5°	431.4	429.0	427.8	427.2	426.0	425.4	423.7	422.6	422.0	420.8	419.6
7.5°	423.7	421.4	419.0	418.4	417.8	415.4	413.6	411.8	410.6	409.4	408.2
10°	414.8	412.4	409.4	408.2	407.0	404.0	401.8	400.0	397.6	395.2	394.6
12.5°	404.0	400.6	397.0	395.8	394.0	391.0	388.6	385.6	383.8	381.0	380.4
15°	391.6	387.4	384.4	381.6	380.4	377.4	373.2	370.8	367.2	366.0	363.0
17.5°	376.8	372.6	368.4	367.2	365.4	361.2	357.2	354.2	350.6	348.8	347.0
20°	361.2	356.0	351.8	350.6	348.2	344.6	340.5	337.6	334.6	331.0	329.2
22.5°	343.4	337.6	334.0	331.0	330.4	326.2	321.5	319.1	316.7	313.8	311.4
25°	323.8	318.5	314.4	312.0	310.8	307.2	303.6	300.7	297.1	295.3	292.4
27.5°	303.6	300.1	294.7	292.4	290.6	287.6	283.5	281.7	278.1	275.7	273.9
30°	284.1	278.7	275.7	272.7	271.0	268.0	264.5	262.7	259.7	257.3	255.5
32.5°	262.7	259.1	254.9	253.7	251.3	248.4	246.1	243.1	240.7	238.3	237.7
35°	243.1	238.3	234.1	232.9	231.1	228.2	227.0	225.3	222.3	221.7	219.3
37.5°	221.7	219.3	214.5	212.7	212.1	209.7	207.3	206.3	204.5	202.7	202.1
40°	201.5	198.5	196.1	194.3	193.1	191.3	188.9	188.3	187.1	184.9	184.3
42.5°	182.5	179.5	177.1	176.5	174.7	172.9	171.7	169.9	169.3	168.7	167.5
45°	164.0	162.3	159.9	159.3	158.7	156.3	155.1	153.9	152.7	152.1	150.9
47.5°	147.3	145.6	143.8	143.2	142.0	141.5	139.7	139.1	137.3	136.7	136.1
50°	131.3	130.1	128.9	128.3	127.1	126.6	125.4	124.2	123.0	122.4	121.8
52.5°	117.1	115.9	114.7	114.1	113.5	112.3	111.1	109.9	109.3	108.7	108.1
55°	103.4	102.2	101.6	101.0	100.4	99.8	98.1	97.5	96.9	96.3	95.1
57.5°	90.9	89.7	88.5	88.5	88.0	87.4	86.2	85.0	85.0	83.8	82.6
60°	79.6	78.4	77.2	76.6	76.1	74.9	74.3	73.7	73.1	72.5	71.3
62.5°	67.8	67.2	66.0	66.0	64.8	64.2	63.6	63.0	62.4	61.2	60.6
65°	57.6	57.0	55.8	55.2	55.2	54.6	53.5	52.9	52.3	52.3	51.7
67.5°	48.2	47.6	46.4	45.8	45.8	45.2	44.6	44.6	44.0	43.4	44.0
70°	39.8	38.6	38.6	38.0	38.0	37.4	36.8	36.8	36.8	37.4	37.4
72.5°	31.5	31.0	30.4	30.4	30.4	30.4	29.8	29.8	30.4	31.0	31.0
75°	25.0	24.4	24.4	24.4	23.8	23.8	24.4	24.4	25.0	25.0	25.0
77.5°	18.4	18.4	18.4	18.4	18.4	18.4	19.0	19.0	19.6	19.6	19.6
80°	13.6	13.6	13.6	13.6	13.6	14.2	14.2	14.2	14.2	14.2	14.8
82.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	10.2	10.2	10.2	10.2
85°	5.4	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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: P583676

CATALOG NUMBER: HC807D010-HM80520935-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	438.0	438.0	438.0	438.0	438.0	438.0	438.0	438.0
2.5°	429.0	429.0	429.0	429.6	428.4	428.4	428.4	428.4
5°	419.0	418.4	417.8	418.4	417.2	417.2	416.6	416.6
7.5°	406.4	405.8	405.2	405.2	404.0	404.0	403.6	403.0
10°	392.8	391.6	392.2	391.0	390.4	389.8	389.2	388.6
12.5°	378.0	376.8	376.2	375.0	373.8	373.2	373.8	372.6
15°	361.8	360.1	359.6	358.4	357.2	356.6	356.6	356.0
17.5°	344.0	342.8	342.2	341.1	340.5	339.3	338.7	338.2
20°	327.4	324.4	325.0	323.8	323.2	320.9	320.9	321.5
22.5°	309.0	307.2	306.0	304.8	304.2	303.1	303.1	302.5
25°	290.6	288.8	288.2	287.0	286.4	285.2	284.6	284.6
27.5°	272.7	270.4	270.4	269.2	268.0	267.4	266.8	266.2
30°	253.7	251.9	251.3	251.3	250.8	250.8	249.0	249.6
32.5°	235.9	234.7	234.1	232.9	232.9	232.3	232.3	230.5
35°	218.1	216.3	216.9	215.7	215.1	214.5	215.1	214.5
37.5°	200.9	199.7	199.7	198.5	198.5	197.9	197.3	198.5
40°	183.7	183.1	182.5	181.9	182.5	181.9	180.7	181.3
42.5°	166.3	166.3	165.7	165.7	165.1	165.1	165.1	165.1
45°	150.9	150.3	150.3	149.7	149.7	149.7	149.7	149.1
47.5°	135.5	134.9	134.9	134.9	134.3	134.3	133.7	134.3
50°	120.6	120.6	120.0	120.0	120.6	120.0	119.5	119.5
52.5°	107.0	107.0	106.4	106.4	105.8	105.2	105.8	105.8
55°	94.5	93.9	93.3	93.3	92.7	92.1	92.1	92.7
57.5°	82.6	82.0	81.4	81.4	80.2	79.6	79.6	79.6
60°	71.3	70.1	70.1	69.5	69.5	69.0	69.0	69.0
62.5°	60.6	60.0	60.0	60.0	60.0	59.4	59.4	59.4
65°	51.7	51.7	51.7	52.3	52.3	52.9	52.9	52.9
67.5°	44.6	45.2	45.2	45.2	45.8	45.8	45.8	45.2
70°	38.0	38.0	38.0	38.6	38.6	38.6	38.6	38.6
72.5°	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
75°	25.0	25.6	25.6	25.6	25.0	25.6	25.6	25.0
77.5°	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
80°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
82.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
85°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)