

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: P583455

Luminaire Tested: **HC805D010-HM80520830-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583455
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: HC805D010-HM80520830-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 641.6 lumens
Efficiency: N/A
Efficacy: 106.9 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

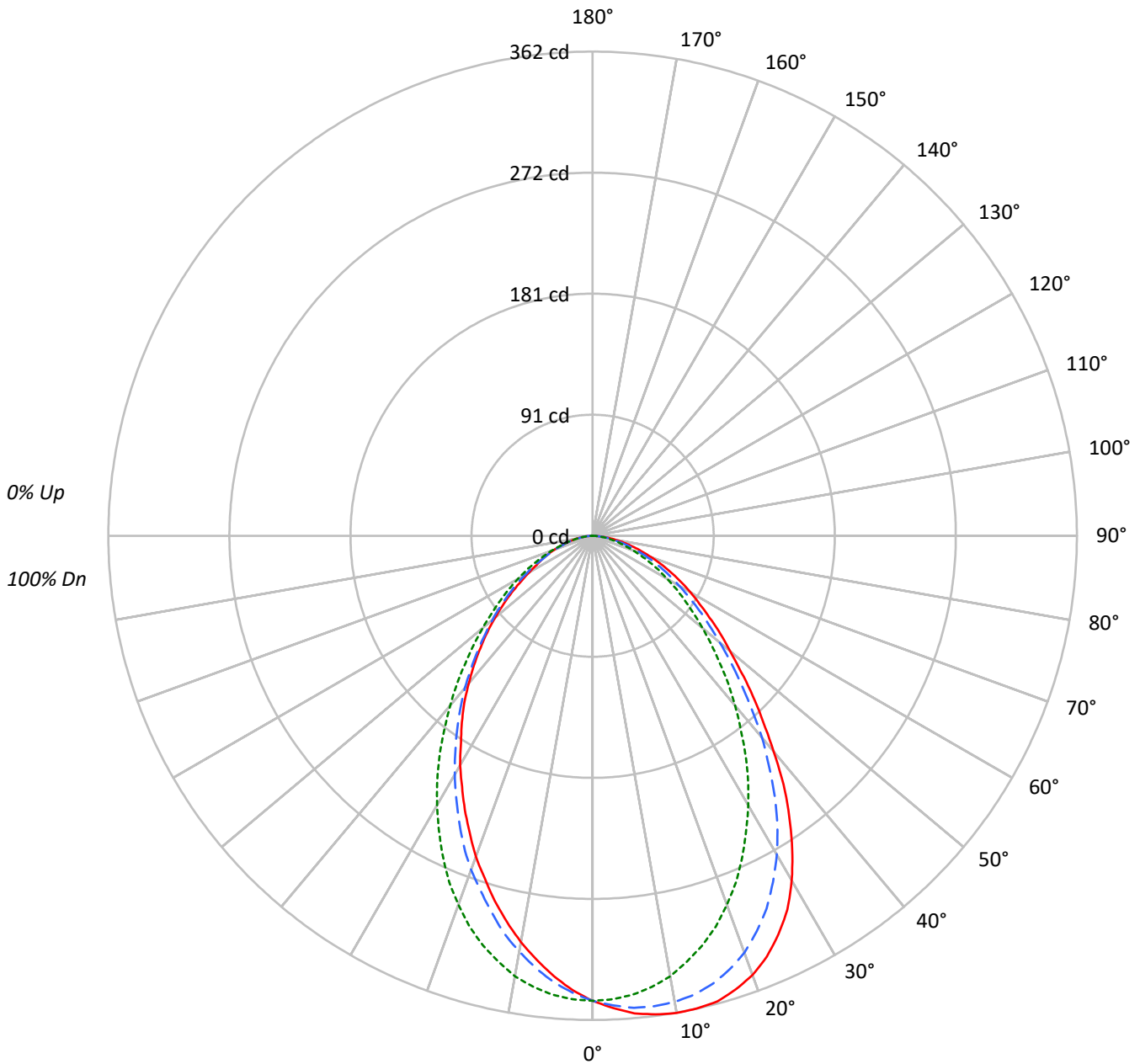
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10722	10722	10722
5°	11097	10661	10237
10°	11344	10471	9660
15°	11505	10120	9022
20°	11469	9628	8374
25°	11187	9006	7689
30°	10600	8282	7054
35°	9644	7495	6411
40°	8469	6662	5793
45°	7387	5861	5163
50°	6424	5138	4548
55°	5736	4511	3957
60°	5205	3959	3373
65°	4684	3444	3065
70°	4165	2939	2759
75°	3646	2466	2371
80°	3108	2024	2113
85°	2335	1486	1663



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.6	5.1
10°-20°	89.7	14.0
20°-30°	124.5	19.4
30°-40°	128.8	20.1
40°-50°	107.8	16.8
50°-60°	78.3	12.2
60°-70°	49.4	7.7
70°-80°	24.5	3.8
80°-90°	6.1	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°	246.8	38.5
0°-40°	375.6	58.5
0°-60°	561.7	87.5
0°-90°	641.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	641.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	358	354	344	335	331	34
15°	360	347	317	292	283	101
25°	329	308	265	236	226	151
35°	256	237	199	176	170	160
45°	169	157	134	121	118	131
55°	107	97	84	77	74	96
65°	64	56	47	42	42	64
75°	31	26	21	20	20	33
85°	7	5	4	5	5	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°	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7
2.5°	353.4	353.4	353.8	353.4	353.4	353.4	352.9	352.9	352.4	352.4	351.4
5°	358.5	357.5	358.5	357.5	357.5	357.5	357.1	356.1	355.7	354.8	354.3
7.5°	360.9	360.4	360.4	359.9	359.9	359.5	359.0	358.5	356.6	356.1	354.8
10°	362.3	361.9	361.9	361.4	360.4	360.4	359.5	359.0	356.6	355.7	353.8
12.5°	361.9	361.9	361.9	361.4	359.9	359.5	358.5	357.1	355.3	353.4	351.4
15°	360.4	360.4	359.5	359.0	357.5	356.6	356.1	353.8	351.9	349.5	346.8
17.5°	355.7	355.7	355.3	354.3	352.9	351.9	351.0	348.6	346.8	342.9	340.1
20°	349.5	349.0	348.6	347.2	345.8	345.3	343.9	340.5	338.3	335.4	331.7
22.5°	340.5	340.1	339.7	338.8	336.4	335.4	334.4	332.0	327.9	325.0	320.3
25°	328.8	328.8	327.9	326.4	324.0	323.2	321.8	319.4	315.6	311.3	307.6
27.5°	315.2	314.7	313.3	312.3	310.4	308.9	306.7	303.8	300.0	296.7	291.9
30°	297.7	297.7	296.7	295.3	292.9	291.9	290.2	286.8	283.1	278.8	275.5
32.5°	277.8	277.8	276.4	275.5	274.1	271.7	271.2	267.5	264.2	260.8	257.1
35°	256.2	256.6	255.7	253.8	251.5	251.5	250.5	247.2	243.5	240.1	237.2
37.5°	234.5	233.1	232.6	231.6	230.2	228.3	227.4	226.0	222.6	220.2	216.1
40°	210.4	210.9	210.0	209.0	208.5	207.1	206.6	204.2	201.9	199.1	197.1
42.5°	188.6	188.6	188.6	187.8	186.9	185.4	184.9	183.5	180.6	178.8	176.0
45°	169.4	167.9	167.9	167.5	167.0	166.0	164.6	163.7	161.8	160.4	157.0
47.5°	150.5	150.9	150.5	150.0	148.5	148.1	147.7	145.8	143.9	142.4	140.0
50°	133.9	134.9	133.9	133.9	133.0	132.5	131.7	130.2	128.8	126.4	124.0
52.5°	120.3	120.3	119.8	119.3	117.9	116.9	116.5	116.0	113.7	111.8	109.9
55°	106.7	107.1	107.1	105.7	105.2	104.3	103.8	102.3	101.4	98.6	97.2
57.5°	94.8	94.3	94.8	93.8	92.9	91.9	91.6	90.6	89.2	87.3	85.3
60°	84.4	83.6	83.6	83.1	82.1	81.6	80.7	79.2	77.8	76.0	74.6
62.5°	74.1	73.6	73.1	72.7	71.7	71.2	70.7	69.3	68.0	66.6	65.1
65°	64.2	64.2	63.7	62.7	62.2	61.8	61.3	60.3	58.5	57.6	56.1
67.5°	55.2	54.7	54.7	53.7	52.8	52.3	52.3	51.5	50.0	48.6	47.6
70°	46.2	46.7	46.2	45.7	44.8	44.8	43.9	43.5	41.5	41.1	39.6
72.5°	38.2	38.2	37.7	37.7	36.7	36.3	36.3	35.4	34.5	33.5	32.6
75°	30.6	30.6	30.6	30.2	29.7	28.7	28.7	28.2	27.4	26.5	25.5
77.5°	24.1	23.6	23.6	23.1	22.6	22.1	22.1	21.7	20.7	20.2	19.4
80°	17.5	17.0	17.0	17.0	16.0	16.5	16.0	15.6	15.1	14.6	14.1
82.5°	11.4	11.9	11.9	11.4	10.9	10.9	10.9	10.4	10.4	9.9	9.5
85°	6.6	6.6	6.6	6.6	6.1	6.1	6.1	5.6	5.6	5.6	5.1
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7
2.5°	351.4	350.5	350.0	349.5	349.5	349.0	348.6	347.7	347.7	346.8	346.3
5°	353.4	351.9	351.0	350.0	349.5	348.6	347.7	346.3	345.8	344.4	342.9
7.5°	353.8	351.4	350.5	348.6	347.7	346.8	344.9	343.4	341.5	340.1	338.3
10°	351.9	350.0	347.7	345.3	344.9	343.4	340.5	338.8	336.4	334.4	331.7
12.5°	349.0	346.3	343.9	341.0	339.7	338.3	335.4	332.5	329.3	325.9	323.2
15°	344.4	341.0	337.8	334.4	332.5	331.2	327.9	324.5	321.3	317.0	314.2
17.5°	337.3	333.5	330.3	325.9	324.0	322.7	318.4	314.7	310.4	306.2	303.3
20°	328.3	323.7	319.8	315.2	313.7	311.3	307.2	302.8	298.2	293.4	290.2
22.5°	316.5	311.8	307.6	302.8	300.4	298.2	293.9	288.7	283.9	280.2	276.9
25°	302.8	298.7	293.4	289.2	286.3	283.6	278.8	274.6	270.3	264.7	261.3
27.5°	287.8	282.6	278.8	273.2	270.3	268.4	263.2	257.6	253.8	248.6	244.8
30°	270.8	266.1	261.8	256.2	253.3	251.5	246.7	241.6	237.7	232.6	228.7
32.5°	252.8	247.7	242.5	238.7	235.4	233.5	228.3	225.0	220.2	216.1	211.9
35°	233.5	228.3	224.6	219.4	217.5	215.6	211.4	207.1	202.9	199.1	195.8
37.5°	212.7	209.0	204.7	201.0	199.5	197.6	192.5	188.6	185.4	181.6	178.8
40°	192.5	189.1	186.4	182.5	180.1	178.8	175.0	171.8	167.9	165.5	162.8
42.5°	174.0	170.3	167.5	164.6	162.3	160.9	157.5	155.3	152.4	150.0	146.8
45°	154.8	152.9	149.5	147.2	145.8	143.9	141.5	138.7	136.3	134.4	132.0
47.5°	137.8	135.9	133.5	130.7	129.8	128.3	125.9	124.0	122.2	120.3	117.9
50°	122.2	119.8	117.9	116.0	115.2	113.7	111.3	110.4	108.9	107.1	105.7
52.5°	108.0	106.2	104.3	101.9	101.4	100.4	99.1	97.2	95.8	94.8	93.8
55°	95.3	93.4	91.9	90.1	89.7	88.7	86.8	85.8	84.9	83.9	83.1
57.5°	83.9	82.1	80.2	79.2	78.3	77.3	76.8	75.5	74.6	74.1	73.1
60°	73.6	71.7	70.3	68.8	68.3	68.0	67.0	66.1	65.1	64.2	63.7
62.5°	63.7	61.8	60.8	60.0	59.0	59.0	58.1	57.1	56.1	55.7	54.7
65°	54.7	53.7	52.3	51.0	50.5	50.5	49.1	48.6	48.1	47.2	46.2
67.5°	46.2	45.2	43.9	43.5	43.0	42.5	42.0	41.1	40.1	39.6	38.7
70°	38.7	37.7	36.7	36.3	35.9	35.4	34.5	34.0	33.0	32.6	32.1
72.5°	31.1	30.6	29.7	29.2	28.7	28.2	27.9	27.4	26.5	26.0	25.5
75°	25.0	24.5	23.6	23.1	22.6	22.6	22.1	21.2	20.7	20.7	20.2
77.5°	18.9	18.4	18.0	17.5	17.0	17.0	16.5	16.0	15.6	15.6	15.1
80°	13.6	13.2	12.7	12.7	12.7	12.2	11.9	11.9	11.4	11.4	10.9
82.5°	9.0	9.0	8.5	8.5	8.5	8.0	8.0	7.5	7.5	7.5	7.5
85°	5.1	5.1	5.1	4.7	4.7	4.7	4.7	4.7	4.7	4.2	4.7
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9
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°	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7
2.5°	345.8	345.3	344.4	344.4	343.4	343.4	342.9	342.5	342.0	341.5	341.0
5°	342.5	340.5	339.7	339.2	338.3	337.8	336.4	335.4	334.9	334.0	333.0
7.5°	336.4	334.4	332.5	332.0	331.7	329.8	328.3	326.9	325.9	325.0	324.0
10°	329.3	327.4	325.0	324.0	323.2	320.8	318.9	317.4	315.6	313.7	313.3
12.5°	320.8	317.9	315.2	314.2	312.8	310.4	308.5	306.2	304.8	302.4	301.9
15°	310.9	307.6	305.2	302.8	301.9	299.6	296.3	294.3	291.6	290.6	288.2
17.5°	299.1	295.8	292.4	291.6	290.2	286.8	283.6	281.2	278.3	276.9	275.5
20°	286.8	282.6	279.3	278.3	276.4	273.6	270.3	267.9	265.6	262.7	261.3
22.5°	272.7	267.9	265.1	262.7	262.3	259.0	255.2	253.3	251.5	249.1	247.2
25°	257.1	252.8	249.6	247.7	246.7	243.9	241.1	238.7	235.9	234.5	232.1
27.5°	241.1	238.2	234.0	232.1	230.7	228.3	225.0	223.6	220.7	218.9	217.5
30°	225.5	221.2	218.9	216.5	215.1	212.7	210.0	208.5	206.1	204.2	202.9
32.5°	208.5	205.6	202.4	201.5	199.5	197.1	195.4	193.0	191.0	189.1	188.6
35°	193.0	189.1	185.9	184.9	183.5	181.1	180.1	178.8	176.4	176.0	174.0
37.5°	176.0	174.0	170.3	168.9	168.4	166.5	164.6	163.7	162.3	160.9	160.4
40°	159.9	157.5	155.7	154.3	153.3	151.9	150.0	149.5	148.5	146.8	146.3
42.5°	144.8	142.4	140.5	140.0	138.7	137.3	136.3	134.9	134.4	133.9	133.0
45°	130.2	128.8	126.9	126.4	125.9	124.0	123.2	122.2	121.3	120.8	119.8
47.5°	116.9	115.6	114.2	113.7	112.8	112.3	110.8	110.4	108.9	108.4	108.0
50°	104.3	103.3	102.3	101.9	100.9	100.4	99.6	98.6	97.7	97.2	96.7
52.5°	92.9	91.9	91.1	90.6	90.1	89.2	88.2	87.3	86.8	86.3	85.8
55°	82.1	81.2	80.7	80.2	79.7	79.2	77.8	77.3	76.8	76.4	75.5
57.5°	72.2	71.2	70.3	70.3	69.8	69.3	68.3	67.5	67.5	66.6	65.6
60°	63.2	62.2	61.3	60.8	60.3	59.5	59.0	58.5	58.1	57.6	56.6
62.5°	53.7	53.3	52.3	52.3	51.5	51.0	50.5	50.0	49.6	48.6	48.1
65°	45.7	45.2	44.3	43.9	43.9	43.5	42.5	42.0	41.5	41.5	41.1
67.5°	38.2	37.7	36.7	36.3	36.3	35.9	35.4	35.4	35.0	34.5	35.0
70°	31.6	30.6	30.6	30.2	30.2	29.7	29.2	29.2	29.2	29.7	29.7
72.5°	25.0	24.5	24.1	24.1	24.1	24.1	23.6	23.6	24.1	24.5	24.5
75°	19.9	19.4	19.4	19.4	18.9	18.9	19.4	19.4	19.9	19.9	19.9
77.5°	14.6	14.6	14.6	14.6	14.6	14.6	15.1	15.1	15.6	15.6	15.6
80°	10.9	10.9	10.9	10.9	10.9	11.4	11.4	11.4	11.4	11.4	11.9
82.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	8.0	8.0	8.0	8.0
85°	4.2	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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: P583455

CATALOG NUMBER: HC805D010-HM80520830-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7
2.5°	340.5	340.5	340.5	341.0	340.1	340.1	340.1	340.1
5°	332.5	332.0	331.7	332.0	331.2	331.2	330.7	330.7
7.5°	322.7	322.2	321.8	321.8	320.8	320.8	320.3	319.8
10°	311.8	310.9	311.3	310.4	309.9	309.4	308.9	308.5
12.5°	300.0	299.1	298.7	297.7	296.7	296.3	296.7	295.8
15°	287.3	285.8	285.4	284.4	283.6	283.1	283.1	282.6
17.5°	273.2	272.2	271.7	270.8	270.3	269.3	268.8	268.4
20°	259.9	257.6	258.1	257.1	256.6	254.7	254.7	255.2
22.5°	245.3	243.9	243.0	242.0	241.6	240.6	240.6	240.1
25°	230.7	229.2	228.7	227.9	227.4	226.5	226.0	226.0
27.5°	216.5	214.6	214.6	213.7	212.7	212.2	211.9	211.4
30°	201.5	200.0	199.5	199.5	199.1	199.1	197.6	198.1
32.5°	187.3	186.4	185.9	184.9	184.9	184.5	184.5	183.0
35°	173.1	171.8	172.1	171.3	170.8	170.3	170.8	170.3
37.5°	159.4	158.5	158.5	157.5	157.5	157.0	156.6	157.5
40°	145.8	145.3	144.8	144.4	144.8	144.4	143.4	143.9
42.5°	132.0	132.0	131.7	131.7	131.2	131.2	131.2	131.2
45°	119.8	119.3	119.3	118.9	118.9	118.9	118.9	118.4
47.5°	107.6	107.1	107.1	107.1	106.7	106.7	106.2	106.7
50°	95.8	95.8	95.3	95.3	95.8	95.3	94.8	94.8
52.5°	84.9	84.9	84.4	84.4	83.9	83.6	83.9	83.9
55°	75.1	74.6	74.1	74.1	73.6	73.1	73.1	73.6
57.5°	65.6	65.1	64.6	64.6	63.7	63.2	63.2	63.2
60°	56.6	55.7	55.7	55.2	55.2	54.7	54.7	54.7
62.5°	48.1	47.6	47.6	47.6	47.6	47.2	47.2	47.2
65°	41.1	41.1	41.1	41.5	41.5	42.0	42.0	42.0
67.5°	35.4	35.9	35.9	35.9	36.3	36.3	36.3	35.9
70°	30.2	30.2	30.2	30.6	30.6	30.6	30.6	30.6
72.5°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
75°	19.9	20.2	20.2	20.2	19.9	20.2	20.2	19.9
77.5°	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
80°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
82.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
85°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)