

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: P583557

Luminaire Tested: **HC805D010-HM80520940-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583557
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-HM80520940-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 630.8 lumens
Efficiency: N/A
Efficacy: 105.1 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

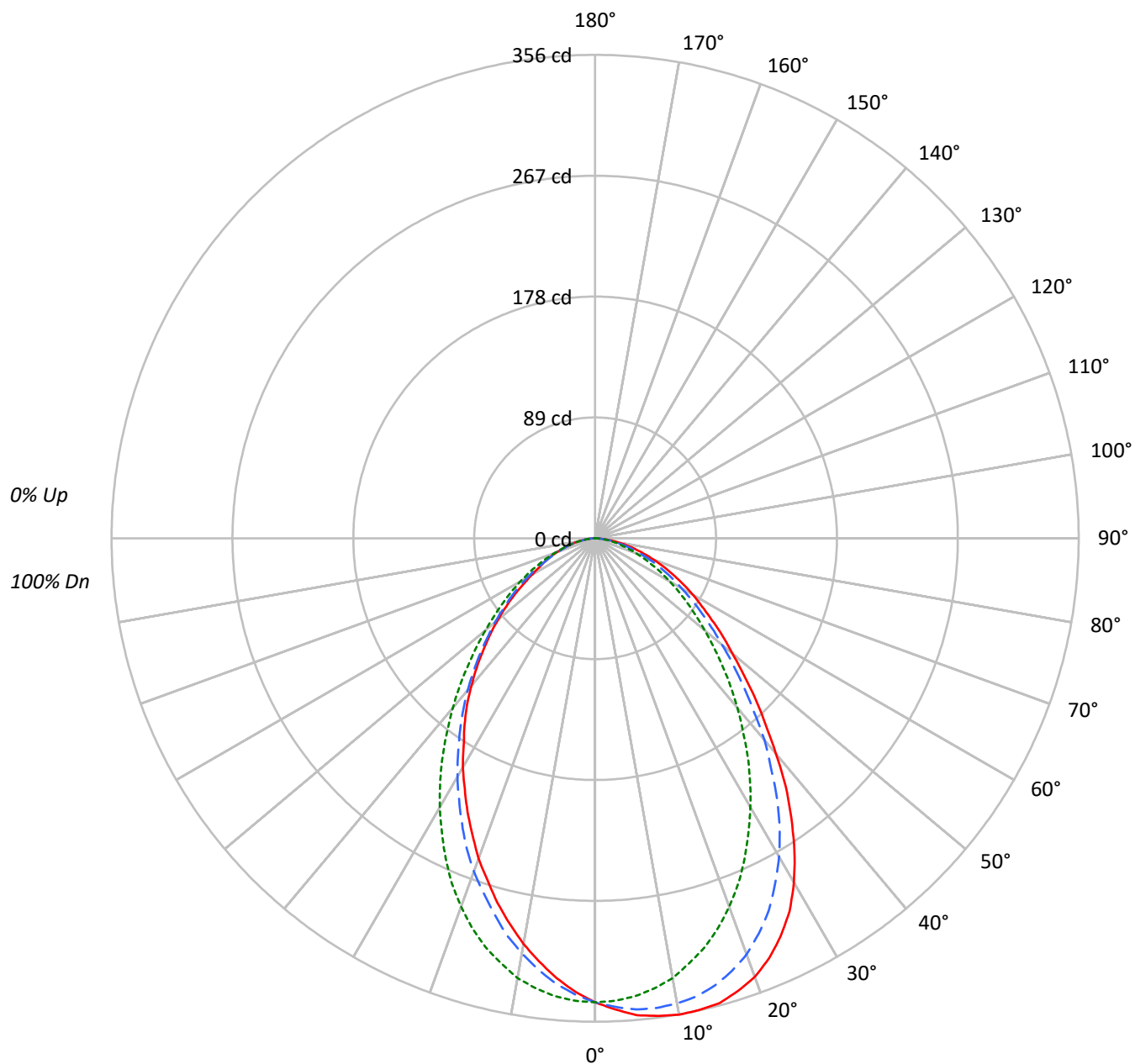
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	10537	10537	10537
5°	10911	10478	10063
10°	11153	10295	9497
15°	11311	9951	8869
20°	11279	9467	8233
25°	10997	8853	7560
30°	10422	8140	6936
35°	9479	7367	6305
40°	8325	6553	5696
45°	7261	5761	5072
50°	6318	5047	4471
55°	5640	4441	3887
60°	5125	3892	3312
65°	4604	3378	3013
70°	4102	2885	2723
75°	3598	2419	2323
80°	3037	1971	2060
85°	2300	1486	1663



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.0	5.1
10°-20°	88.2	14.0
20°-30°	122.4	19.4
30°-40°	126.6	20.1
40°-50°	106.0	16.8
50°-60°	77.0	12.2
60°-70°	48.6	7.7
70°-80°	24.1	3.8
80°-90°	6.0	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°	242.7	38.5
0°-40°	369.3	58.5
0°-60°	552.2	87.5
0°-90°	630.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	630.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	342	342	342	342	342	
5°	352	348	338	329	325	34
15°	354	341	312	287	278	100
25°	323	302	260	232	222	148
35°	252	233	196	173	168	157
45°	166	154	132	119	116	129
55°	105	96	83	76	72	95
65°	63	55	46	41	41	63
75°	30	25	20	20	20	32
85°	6	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°	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7
2.5°	347.4	347.4	347.8	347.4	347.4	347.4	346.9	346.9	346.4	346.4	345.5
5°	352.5	351.6	352.5	351.6	351.6	351.6	351.1	350.1	349.6	348.8	348.3
7.5°	354.8	354.3	354.3	353.8	353.8	353.4	352.9	352.5	350.6	350.1	348.8
10°	356.2	355.7	355.7	355.3	354.3	354.3	353.4	352.9	350.6	349.6	347.8
12.5°	355.7	355.7	355.7	355.3	353.8	353.4	352.5	351.1	349.2	347.4	345.5
15°	354.3	354.3	353.4	352.9	351.6	350.6	350.1	347.8	345.9	343.7	340.9
17.5°	349.6	349.6	349.2	348.3	346.9	345.9	345.1	342.7	340.9	337.2	334.3
20°	343.7	343.2	342.7	341.4	339.9	339.5	338.0	334.8	332.5	329.8	326.1
22.5°	334.8	334.3	334.0	333.0	330.6	329.8	328.8	326.5	322.4	319.5	314.9
25°	323.2	323.2	322.4	320.9	318.6	317.7	316.2	314.0	310.3	306.1	302.4
27.5°	309.8	309.3	308.0	307.0	305.1	303.8	301.4	298.7	294.9	291.7	287.0
30°	292.7	292.7	291.7	290.3	288.0	287.0	285.2	282.0	278.3	274.1	270.9
32.5°	273.2	273.2	271.7	270.9	269.4	267.2	266.7	263.0	259.7	256.5	252.8
35°	251.8	252.3	251.4	249.5	247.2	247.2	246.2	243.0	239.3	236.0	233.3
37.5°	230.5	229.1	228.6	227.7	226.4	224.4	223.5	222.2	218.9	216.5	212.3
40°	206.8	207.3	206.4	205.4	204.9	203.6	203.1	200.9	198.5	195.7	193.9
42.5°	185.5	185.5	185.5	184.6	183.6	182.3	181.8	180.4	177.6	175.7	173.0
45°	166.5	165.1	165.1	164.6	164.2	163.3	161.8	160.9	159.1	157.6	154.4
47.5°	147.9	148.4	147.9	147.5	146.0	145.7	145.2	143.3	141.5	140.0	137.8
50°	131.7	132.6	131.7	131.7	130.8	130.4	129.4	128.0	126.6	124.2	122.0
52.5°	118.3	118.3	117.8	117.3	116.0	115.0	114.6	114.1	111.8	109.9	108.1
55°	104.9	105.2	105.2	103.9	103.4	102.5	102.0	100.7	99.7	97.0	95.5
57.5°	93.2	92.8	93.2	92.3	91.3	90.5	90.0	89.1	87.6	85.8	83.9
60°	83.1	82.1	82.1	81.6	80.7	80.2	79.4	77.9	76.5	74.7	73.3
62.5°	72.8	72.3	71.9	71.5	70.5	70.0	69.5	68.2	66.8	65.4	64.0
65°	63.1	63.1	62.6	61.6	61.2	60.8	60.3	59.4	57.5	56.6	55.2
67.5°	54.2	53.7	53.7	52.9	51.9	51.5	51.5	50.5	49.2	47.8	46.8
70°	45.5	46.0	45.5	45.0	44.0	44.0	43.1	42.6	40.8	40.3	38.9
72.5°	37.6	37.6	37.1	37.1	36.1	35.7	35.7	34.8	33.9	32.9	32.0
75°	30.2	30.2	30.2	29.7	29.2	28.2	28.2	27.8	26.9	26.0	25.0
77.5°	23.7	23.2	23.2	22.7	22.3	21.8	21.8	21.3	20.3	20.0	19.0
80°	17.1	16.6	16.6	16.6	15.8	16.3	15.8	15.3	14.8	14.4	13.9
82.5°	11.1	11.6	11.6	11.1	10.7	10.7	10.7	10.2	10.2	9.7	9.2
85°	6.5	6.5	6.5	6.5	6.0	6.0	6.0	5.5	5.5	5.5	5.1
87.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.3	2.3	2.3	2.3	2.3
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°	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7
2.5°	345.5	344.6	344.1	343.7	343.7	343.2	342.7	341.7	341.7	340.9	340.4
5°	347.4	345.9	345.1	344.1	343.7	342.7	341.7	340.4	339.9	338.5	337.2
7.5°	347.8	345.5	344.6	342.7	341.7	340.9	339.0	337.7	335.8	334.3	332.5
10°	345.9	344.1	341.7	339.5	339.0	337.7	334.8	333.0	330.6	328.8	326.1
12.5°	343.2	340.4	338.0	335.3	334.0	332.5	329.8	326.9	323.7	320.4	317.7
15°	338.5	335.3	332.0	328.8	326.9	325.6	322.4	319.1	315.8	311.7	308.8
17.5°	331.6	327.9	324.6	320.4	318.6	317.2	313.0	309.3	305.1	301.0	298.2
20°	322.8	318.2	314.5	309.8	308.3	306.1	301.9	297.7	293.1	288.5	285.2
22.5°	311.2	306.6	302.4	297.7	295.4	293.1	289.0	283.8	279.1	275.4	272.2
25°	297.7	293.6	288.5	284.3	281.5	278.8	274.1	269.9	265.7	260.2	256.9
27.5°	282.9	277.8	274.1	268.5	265.7	263.9	258.8	253.2	249.5	244.4	240.7
30°	266.2	261.5	257.4	251.8	249.1	247.2	242.5	237.5	233.8	228.6	224.9
32.5°	248.6	243.5	238.3	234.6	231.4	229.6	224.4	221.2	216.5	212.3	208.3
35°	229.6	224.4	220.7	215.7	213.8	212.0	207.8	203.6	199.4	195.7	192.5
37.5°	209.1	205.4	201.3	197.6	196.2	194.3	189.2	185.5	182.3	178.6	175.7
40°	189.2	186.0	183.1	179.4	177.2	175.7	172.0	168.8	165.1	162.8	160.0
42.5°	171.2	167.5	164.6	161.8	159.6	158.1	154.9	152.6	149.7	147.5	144.2
45°	152.1	150.2	147.0	144.7	143.3	141.5	139.1	136.3	134.1	132.1	129.9
47.5°	135.4	133.6	131.2	128.4	127.5	126.2	123.8	122.0	120.1	118.3	116.0
50°	120.1	117.8	116.0	114.1	113.1	111.8	109.4	108.6	107.1	105.2	103.9
52.5°	106.2	104.4	102.5	100.2	99.7	98.8	97.4	95.5	94.2	93.2	92.3
55°	93.7	91.8	90.5	88.6	88.1	87.1	85.3	84.4	83.4	82.6	81.6
57.5°	82.6	80.7	78.9	77.9	77.0	76.0	75.7	74.2	73.3	72.8	71.9
60°	72.3	70.5	69.1	67.8	67.3	66.8	65.8	64.9	64.0	63.1	62.6
62.5°	62.6	60.8	59.8	58.9	57.9	57.9	57.1	56.1	55.2	54.7	53.7
65°	53.7	52.9	51.5	50.0	49.7	49.7	48.2	47.8	47.3	46.3	45.5
67.5°	45.5	44.5	43.1	42.6	42.3	41.8	41.3	40.3	39.4	38.9	38.1
70°	38.1	37.1	36.1	35.7	35.2	34.8	33.9	33.4	32.4	32.0	31.5
72.5°	30.6	30.2	29.2	28.7	28.2	27.8	27.4	26.9	26.0	25.5	25.0
75°	24.5	24.1	23.2	22.7	22.3	22.3	21.8	20.8	20.3	20.3	20.0
77.5°	18.6	18.1	17.6	17.1	16.6	16.6	16.3	15.8	15.3	15.3	14.8
80°	13.4	12.9	12.6	12.6	12.6	12.1	11.6	11.6	11.1	11.1	10.7
82.5°	8.9	8.9	8.4	8.4	8.4	7.9	7.9	7.4	7.4	7.4	7.4
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°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.8	1.8	1.8
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°	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7
2.5°	339.9	339.5	338.5	338.5	337.7	337.7	337.2	336.7	336.2	335.8	335.3
5°	336.7	334.8	334.0	333.5	332.5	332.0	330.6	329.8	329.3	328.3	327.4
7.5°	330.6	328.8	326.9	326.5	326.1	324.1	322.8	321.4	320.4	319.5	318.6
10°	323.7	321.9	319.5	318.6	317.7	315.4	313.5	312.1	310.3	308.3	308.0
12.5°	315.4	312.5	309.8	308.8	307.5	305.1	303.3	301.0	299.6	297.3	296.9
15°	305.6	302.4	300.1	297.7	296.9	294.5	291.2	289.4	286.6	285.7	283.3
17.5°	294.0	290.8	287.5	286.6	285.2	282.0	278.8	276.4	273.6	272.2	270.9
20°	282.0	277.8	274.6	273.6	271.7	269.0	265.7	263.5	261.1	258.3	256.9
22.5°	268.0	263.5	260.6	258.3	257.8	254.6	250.9	249.1	247.2	244.9	243.0
25°	252.8	248.6	245.4	243.5	242.5	239.8	237.0	234.6	231.9	230.5	228.1
27.5°	237.0	234.3	230.1	228.1	226.8	224.4	221.2	219.8	217.0	215.2	213.8
30°	221.7	217.5	215.2	212.8	211.5	209.1	206.4	204.9	202.7	200.9	199.4
32.5°	204.9	202.2	198.9	198.0	196.2	193.9	192.0	189.7	187.8	186.0	185.5
35°	189.7	186.0	182.8	181.8	180.4	178.1	177.2	175.7	173.4	173.0	171.2
37.5°	173.0	171.2	167.5	166.0	165.5	163.7	161.8	160.9	159.6	158.1	157.6
40°	157.2	154.9	153.1	151.7	150.7	149.4	147.5	147.0	146.0	144.2	143.8
42.5°	142.3	140.0	138.3	137.8	136.3	134.9	134.1	132.6	132.1	131.7	130.8
45°	128.0	126.6	124.7	124.2	123.8	122.0	121.0	120.1	119.2	118.7	117.8
47.5°	115.0	113.6	112.3	111.8	110.8	110.4	108.9	108.6	107.1	106.7	106.2
50°	102.5	101.6	100.7	100.2	99.2	98.8	97.9	97.0	96.0	95.5	95.0
52.5°	91.3	90.5	89.5	89.1	88.6	87.6	86.8	85.8	85.3	84.9	84.4
55°	80.7	79.7	79.4	78.9	78.4	77.9	76.5	76.0	75.7	75.2	74.2
57.5°	71.0	70.0	69.1	69.1	68.6	68.2	67.3	66.3	66.3	65.4	64.5
60°	62.1	61.2	60.3	59.8	59.4	58.4	57.9	57.5	57.1	56.6	55.7
62.5°	52.9	52.4	51.5	51.5	50.5	50.0	49.7	49.2	48.7	47.8	47.3
65°	45.0	44.5	43.6	43.1	43.1	42.6	41.8	41.3	40.8	40.8	40.3
67.5°	37.6	37.1	36.1	35.7	35.7	35.2	34.8	34.8	34.4	33.9	34.4
70°	31.1	30.2	30.2	29.7	29.7	29.2	28.7	28.7	28.7	29.2	29.2
72.5°	24.5	24.1	23.7	23.7	23.7	23.7	23.2	23.2	23.7	24.1	24.1
75°	19.5	19.0	19.0	19.0	18.6	18.6	19.0	19.0	19.5	19.5	19.5
77.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.8	14.8	15.3	15.3	15.3
80°	10.7	10.7	10.7	10.7	10.7	11.1	11.1	11.1	11.1	11.1	11.6
82.5°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.9	7.9	7.9	7.9
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°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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: P583557

CATALOG NUMBER: HC805D010-HM80520940-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7
2.5°	334.8	334.8	334.8	335.3	334.3	334.3	334.3	334.3
5°	326.9	326.5	326.1	326.5	325.6	325.6	325.1	325.1
7.5°	317.2	316.7	316.2	316.2	315.4	315.4	314.9	314.5
10°	306.6	305.6	306.1	305.1	304.8	304.3	303.8	303.3
12.5°	294.9	294.0	293.6	292.7	291.7	291.2	291.7	290.8
15°	282.5	281.1	280.6	279.6	278.8	278.3	278.3	277.8
17.5°	268.5	267.6	267.2	266.2	265.7	264.8	264.3	263.9
20°	255.6	253.2	253.6	252.8	252.3	250.4	250.4	250.9
22.5°	241.2	239.8	238.8	238.0	237.5	236.5	236.5	236.0
25°	226.8	225.4	224.9	224.0	223.5	222.6	222.2	222.2
27.5°	212.8	211.0	211.0	210.1	209.1	208.6	208.3	207.8
30°	198.0	196.7	196.2	196.2	195.7	195.7	194.3	194.8
32.5°	184.1	183.1	182.8	181.8	181.8	181.3	181.3	179.9
35°	170.2	168.8	169.3	168.3	167.9	167.5	167.9	167.5
37.5°	156.8	155.8	155.8	154.9	154.9	154.4	153.9	154.9
40°	143.3	142.8	142.3	142.0	142.3	142.0	141.0	141.5
42.5°	129.9	129.9	129.4	129.4	128.9	128.9	128.9	128.9
45°	117.8	117.3	117.3	116.8	116.8	116.8	116.8	116.3
47.5°	105.7	105.2	105.2	105.2	104.9	104.9	104.4	104.9
50°	94.2	94.2	93.7	93.7	94.2	93.7	93.2	93.2
52.5°	83.4	83.4	83.1	83.1	82.6	82.1	82.6	82.6
55°	73.7	73.3	72.8	72.8	72.3	71.9	71.9	72.3
57.5°	64.5	64.0	63.6	63.6	62.6	62.1	62.1	62.1
60°	55.7	54.7	54.7	54.2	54.2	53.7	53.7	53.7
62.5°	47.3	46.8	46.8	46.8	46.8	46.3	46.3	46.3
65°	40.3	40.3	40.3	40.8	40.8	41.3	41.3	41.3
67.5°	34.8	35.2	35.2	35.2	35.7	35.7	35.7	35.2
70°	29.7	29.7	29.7	30.2	30.2	30.2	30.2	30.2
72.5°	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
75°	19.5	20.0	20.0	20.0	19.5	20.0	20.0	19.5
77.5°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
80°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
82.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
85°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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)