

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: P583540

Luminaire Tested: **HC805D010-HM80520935-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583540
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-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: 612.6 lumens
Efficiency: N/A
Efficacy: 102.1 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

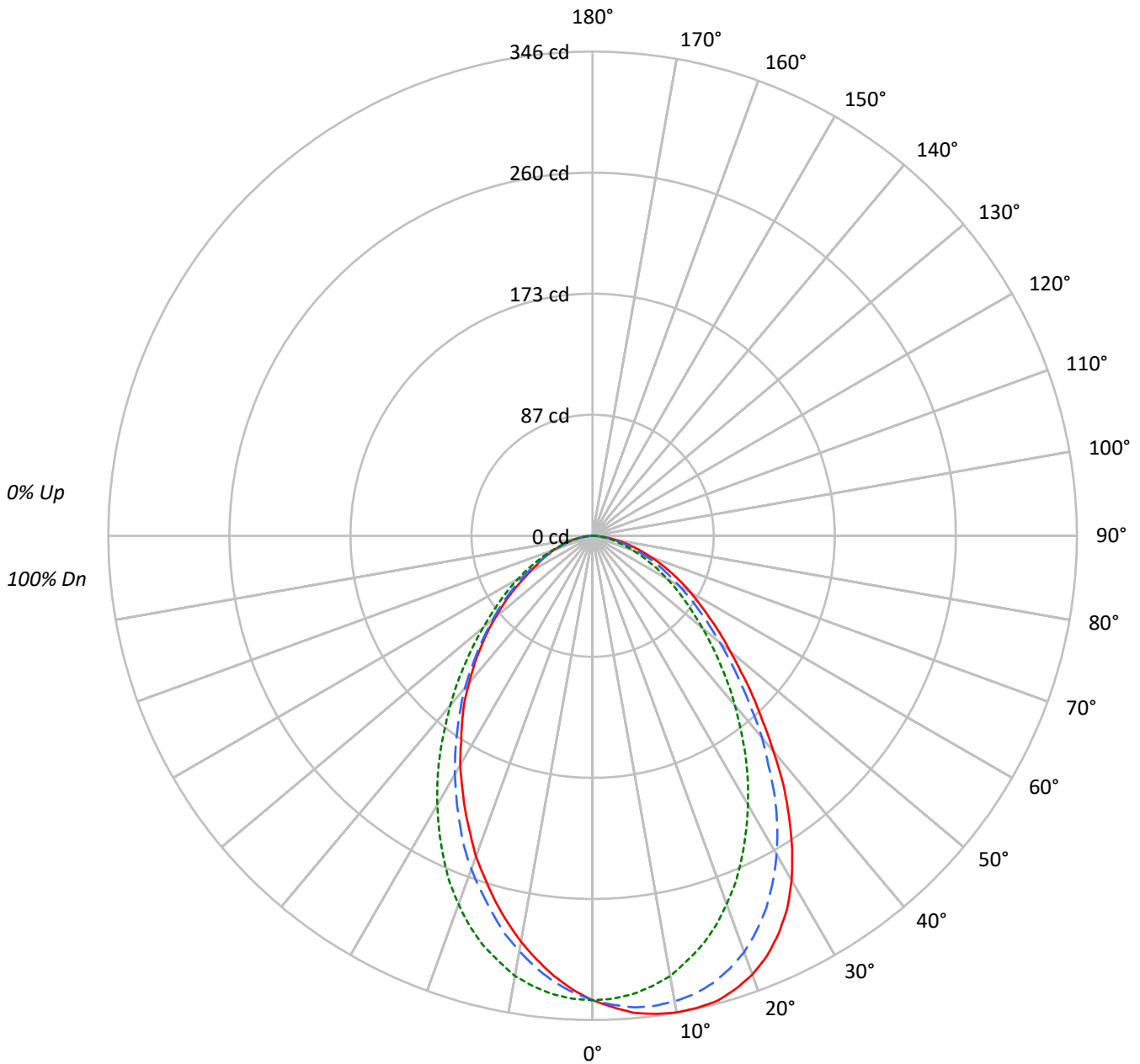
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10235	10235	10235
5°	10596	10178	9775
10°	10831	10001	9225
15°	10985	9663	8613
20°	10950	9192	7997
25°	10684	8598	7339
30°	10119	7905	6733
35°	9204	7156	6121
40°	8087	6364	5531
45°	7052	5595	4928
50°	6141	4903	4342
55°	5468	4312	3779
60°	4977	3781	3219
65°	4473	3283	2926
70°	3985	2804	2642
75°	3491	2371	2252
80°	2948	1918	2007
85°	2229	1451	1592



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	5.1
10°-20°	85.7	14.0
20°-30°	118.9	19.4
30°-40°	122.9	20.1
40°-50°	102.9	16.8
50°-60°	74.7	12.2
60°-70°	47.2	7.7
70°-80°	23.4	3.8
80°-90°	5.8	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°	235.7	38.5
0°-40°	358.6	58.5
0°-60°	536.3	87.5
0°-90°	612.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	612.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	332	332	332	332	332	
5°	342	338	329	320	316	33
15°	344	331	303	278	270	97
25°	314	294	253	225	216	144
35°	244	227	190	168	163	152
45°	162	150	128	116	113	125
55°	102	93	80	73	70	92
65°	61	54	45	40	40	61
75°	29	24	20	19	19	31
85°	6	5	4	4	4	8
90°	0	0	0	0	0	



TEST NUMBER: P583540

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9
2.5°	337.3	337.3	337.8	337.3	337.3	337.3	337.0	337.0	336.5	336.5	335.5
5°	342.3	341.4	342.3	341.4	341.4	341.4	340.9	340.1	339.6	338.8	338.3
7.5°	344.6	344.1	344.1	343.7	343.7	343.2	342.7	342.3	340.5	340.1	338.8
10°	345.9	345.5	345.5	345.0	344.1	344.1	343.2	342.7	340.5	339.6	337.8
12.5°	345.5	345.5	345.5	345.0	343.7	343.2	342.3	340.9	339.1	337.3	335.5
15°	344.1	344.1	343.2	342.7	341.4	340.5	340.1	337.8	336.0	333.7	331.1
17.5°	339.6	339.6	339.1	338.3	337.0	336.0	335.0	332.9	331.1	327.5	324.7
20°	333.7	333.2	332.9	331.4	330.1	329.7	328.3	325.2	323.0	320.2	316.6
22.5°	325.2	324.7	324.3	323.4	321.2	320.2	319.4	317.1	313.0	310.4	305.8
25°	314.0	314.0	313.0	311.7	309.4	308.5	307.2	304.9	301.3	297.2	293.6
27.5°	300.9	300.4	299.0	298.2	296.4	295.1	292.8	290.0	286.4	283.3	278.8
30°	284.2	284.2	283.3	281.9	279.7	278.8	277.0	273.9	270.3	266.2	263.0
32.5°	265.3	265.3	263.9	263.0	261.7	259.4	259.0	255.3	252.2	249.1	245.5
35°	244.5	245.0	244.1	242.3	240.1	240.1	239.2	236.0	232.5	229.2	226.6
37.5°	223.8	222.5	222.0	221.2	219.8	218.0	217.1	215.7	212.6	210.3	206.2
40°	200.9	201.3	200.4	199.5	199.1	197.7	197.3	195.0	192.7	190.1	188.3
42.5°	180.1	180.1	180.1	179.3	178.4	177.0	176.6	175.2	172.5	170.7	168.1
45°	161.7	160.4	160.4	159.9	159.4	158.5	157.2	156.3	154.5	153.1	150.0
47.5°	143.6	144.1	143.6	143.3	141.8	141.5	141.0	139.2	137.4	136.0	133.8
50°	128.0	128.8	128.0	128.0	127.0	126.5	125.7	124.4	122.9	120.7	118.5
52.5°	114.9	114.9	114.4	114.0	112.6	111.7	111.2	110.8	108.6	106.8	105.0
55°	101.7	102.2	102.2	100.9	100.4	99.6	99.1	97.8	96.8	94.1	92.8
57.5°	90.5	90.1	90.5	89.7	88.7	87.9	87.4	86.4	85.1	83.3	81.5
60°	80.7	79.7	79.7	79.2	78.4	77.9	77.0	75.7	74.3	72.5	71.2
62.5°	70.7	70.3	69.8	69.3	68.5	68.0	67.5	66.2	64.9	63.6	62.1
65°	61.3	61.3	60.8	59.8	59.5	59.0	58.5	57.7	55.9	54.9	53.6
67.5°	52.7	52.2	52.2	51.4	50.4	50.0	50.0	49.1	47.8	46.4	45.5
70°	44.2	44.6	44.2	43.7	42.7	42.7	41.9	41.4	39.6	39.1	37.8
72.5°	36.5	36.5	36.0	36.0	35.1	34.7	34.7	33.8	32.9	32.0	31.1
75°	29.3	29.3	29.3	28.8	28.4	27.5	27.5	27.1	26.1	25.3	24.3
77.5°	23.0	22.5	22.5	22.0	21.7	21.2	21.2	20.7	19.9	19.4	18.4
80°	16.6	16.2	16.2	16.2	15.3	15.8	15.3	14.8	14.4	14.0	13.5
82.5°	10.8	11.3	11.3	10.8	10.4	10.4	10.4	9.9	9.9	9.5	9.0
85°	6.3	6.3	6.3	6.3	5.9	5.9	5.9	5.4	5.4	5.4	4.9
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°	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9
2.5°	335.5	334.7	334.2	333.7	333.7	333.2	332.9	331.9	331.9	331.1	330.6
5°	337.3	336.0	335.0	334.2	333.7	332.9	331.9	330.6	330.1	328.8	327.5
7.5°	337.8	335.5	334.7	332.9	331.9	331.1	329.3	327.9	326.1	324.7	323.0
10°	336.0	334.2	331.9	329.7	329.3	327.9	325.2	323.4	321.2	319.4	316.6
12.5°	333.2	330.6	328.3	325.6	324.3	323.0	320.2	317.6	314.3	311.2	308.5
15°	328.8	325.6	322.5	319.4	317.6	316.1	313.0	309.9	306.7	302.7	300.0
17.5°	322.0	318.4	315.3	311.2	309.4	308.1	304.0	300.4	296.4	292.3	289.6
20°	313.5	308.9	305.4	300.9	299.5	297.2	293.3	289.2	284.6	280.1	277.0
22.5°	302.2	297.7	293.6	289.2	286.9	284.6	280.6	275.7	271.1	267.5	264.4
25°	289.2	285.1	280.1	276.1	273.4	270.6	266.2	262.1	258.1	252.7	249.6
27.5°	274.7	269.8	266.2	260.8	258.1	256.3	251.4	245.9	242.3	237.4	233.8
30°	258.6	254.0	249.9	244.5	241.9	240.1	235.6	230.7	227.0	222.0	218.5
32.5°	241.4	236.4	231.5	227.9	224.8	223.0	218.0	214.9	210.3	206.2	202.2
35°	223.0	218.0	214.4	209.5	207.7	205.9	201.8	197.7	193.7	190.1	187.0
37.5°	203.1	199.5	195.5	191.9	190.6	188.8	183.7	180.1	177.0	173.4	170.7
40°	183.7	180.6	177.9	174.3	172.0	170.7	167.1	164.0	160.4	158.1	155.4
42.5°	166.1	162.6	159.9	157.2	154.9	153.6	150.5	148.2	145.4	143.3	140.0
45°	147.7	145.9	142.8	140.5	139.2	137.4	135.1	132.4	130.1	128.3	126.2
47.5°	131.6	129.8	127.5	124.7	123.9	122.5	120.3	118.5	116.7	114.9	112.6
50°	116.7	114.4	112.6	110.8	109.9	108.6	106.3	105.3	104.0	102.2	100.9
52.5°	103.2	101.4	99.6	97.3	96.8	95.9	94.6	92.8	91.5	90.5	89.7
55°	91.0	89.2	87.9	86.1	85.6	84.6	82.8	82.0	81.0	80.2	79.2
57.5°	80.2	78.4	76.6	75.7	74.8	73.9	73.4	72.1	71.2	70.7	69.8
60°	70.3	68.5	67.2	65.7	65.4	64.9	63.9	63.1	62.1	61.3	60.8
62.5°	60.8	59.0	58.1	57.2	56.3	56.3	55.4	54.5	53.6	53.1	52.2
65°	52.2	51.4	50.0	48.6	48.2	48.2	46.8	46.4	46.0	45.0	44.2
67.5°	44.2	43.2	41.9	41.4	40.9	40.6	40.1	39.1	38.3	37.8	37.0
70°	37.0	36.0	35.1	34.7	34.2	33.8	32.9	32.4	31.5	31.1	30.6
72.5°	29.7	29.3	28.4	27.9	27.5	27.1	26.6	26.1	25.3	24.8	24.3
75°	23.8	23.5	22.5	22.0	21.7	21.7	21.2	20.2	19.9	19.9	19.4
77.5°	18.1	17.6	17.1	16.6	16.2	16.2	15.8	15.3	14.8	14.8	14.4
80°	13.0	12.6	12.2	12.2	12.2	11.7	11.3	11.3	10.8	10.8	10.4
82.5°	8.5	8.5	8.1	8.1	8.1	7.7	7.7	7.2	7.2	7.2	7.2
85°	4.9	4.9	4.9	4.5	4.5	4.5	4.5	4.5	4.5	4.1	4.5
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°	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9
2.5°	330.1	329.7	328.8	328.8	327.9	327.9	327.5	327.0	326.5	326.1	325.6
5°	327.0	325.2	324.3	323.8	323.0	322.5	321.2	320.2	319.8	318.9	318.0
7.5°	321.2	319.4	317.6	317.1	316.6	314.8	313.5	312.2	311.2	310.4	309.4
10°	314.3	312.5	310.4	309.4	308.5	306.3	304.5	303.1	301.3	299.5	299.0
12.5°	306.3	303.6	300.9	300.0	298.7	296.4	294.6	292.3	291.0	288.7	288.2
15°	296.9	293.6	291.3	289.2	288.2	286.0	282.9	281.1	278.3	277.5	275.2
17.5°	285.6	282.4	279.3	278.3	277.0	273.9	270.6	268.5	265.7	264.4	263.0
20°	273.9	269.8	266.7	265.7	263.9	261.2	258.1	255.8	253.5	250.9	249.6
22.5°	260.3	255.8	253.2	250.9	250.4	247.3	243.7	241.9	240.1	237.8	236.0
25°	245.5	241.4	238.2	236.4	235.6	232.8	230.2	227.9	225.2	223.8	221.6
27.5°	230.2	227.4	223.4	221.6	220.2	218.0	214.9	213.5	210.8	209.0	207.7
30°	215.3	211.3	209.0	206.7	205.4	203.1	200.4	199.1	196.8	195.0	193.7
32.5°	199.1	196.4	193.2	192.4	190.6	188.3	186.5	184.2	182.4	180.6	180.1
35°	184.2	180.6	177.5	176.6	175.2	173.0	172.0	170.7	168.4	168.1	166.1
37.5°	168.1	166.1	162.6	161.2	160.8	159.0	157.2	156.3	154.9	153.6	153.1
40°	152.7	150.5	148.7	147.2	146.4	145.1	143.3	142.8	141.8	140.0	139.6
42.5°	138.3	136.0	134.2	133.8	132.4	131.1	130.1	128.8	128.3	128.0	127.0
45°	124.4	122.9	121.1	120.7	120.3	118.5	117.5	116.7	115.7	115.3	114.4
47.5°	111.7	110.4	109.0	108.6	107.6	107.3	105.8	105.3	104.0	103.5	103.2
50°	99.6	98.6	97.8	97.3	96.4	95.9	95.0	94.1	93.2	92.8	92.3
52.5°	88.7	87.9	86.9	86.4	86.1	85.1	84.3	83.3	82.8	82.5	82.0
55°	78.4	77.4	77.0	76.6	76.1	75.7	74.3	73.9	73.4	73.0	72.1
57.5°	68.9	68.0	67.2	67.2	66.7	66.2	65.4	64.4	64.4	63.6	62.6
60°	60.3	59.5	58.5	58.1	57.7	56.7	56.3	55.9	55.4	54.9	54.1
62.5°	51.4	50.9	50.0	50.0	49.1	48.6	48.2	47.8	47.3	46.4	46.0
65°	43.7	43.2	42.4	41.9	41.9	41.4	40.6	40.1	39.6	39.6	39.1
67.5°	36.5	36.0	35.1	34.7	34.7	34.2	33.8	33.8	33.3	32.9	33.3
70°	30.2	29.3	29.3	28.8	28.8	28.4	27.9	27.9	27.9	28.4	28.4
72.5°	23.8	23.5	23.0	23.0	23.0	23.0	22.5	22.5	23.0	23.5	23.5
75°	18.9	18.4	18.4	18.4	18.1	18.1	18.4	18.4	18.9	18.9	18.9
77.5°	14.0	14.0	14.0	14.0	14.0	14.0	14.4	14.4	14.8	14.8	14.8
80°	10.4	10.4	10.4	10.4	10.4	10.8	10.8	10.8	10.8	10.8	11.3
82.5°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.7	7.7	7.7	7.7
85°	4.1	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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: P583540

CATALOG NUMBER: HC805D010-HM80520935-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9
2.5°	325.2	325.2	325.2	325.6	324.7	324.7	324.7	324.7
5°	317.6	317.1	316.6	317.1	316.1	316.1	315.8	315.8
7.5°	308.1	307.6	307.2	307.2	306.3	306.3	305.8	305.4
10°	297.7	296.9	297.2	296.4	295.9	295.4	295.1	294.6
12.5°	286.4	285.6	285.1	284.2	283.3	282.9	283.3	282.4
15°	274.4	272.9	272.4	271.6	270.6	270.3	270.3	269.8
17.5°	260.8	259.9	259.4	258.6	258.1	257.2	256.8	256.3
20°	248.1	245.9	246.3	245.5	245.0	243.2	243.2	243.7
22.5°	234.3	232.8	232.0	231.0	230.7	229.7	229.7	229.2
25°	220.2	218.9	218.5	217.5	217.1	216.2	215.7	215.7
27.5°	206.7	204.9	204.9	204.1	203.1	202.7	202.2	201.8
30°	192.4	190.9	190.6	190.6	190.1	190.1	188.8	189.1
32.5°	178.8	177.9	177.5	176.6	176.6	176.1	176.1	174.8
35°	165.3	164.0	164.3	163.5	163.0	162.6	163.0	162.6
37.5°	152.3	151.3	151.3	150.5	150.5	150.0	149.5	150.5
40°	139.2	138.7	138.3	137.8	138.3	137.8	136.9	137.4
42.5°	126.2	126.2	125.7	125.7	125.2	125.2	125.2	125.2
45°	114.4	114.0	114.0	113.5	113.5	113.5	113.5	113.0
47.5°	102.7	102.2	102.2	102.2	101.7	101.7	101.4	101.7
50°	91.5	91.5	91.0	91.0	91.5	91.0	90.5	90.5
52.5°	81.0	81.0	80.7	80.7	80.2	79.7	80.2	80.2
55°	71.6	71.2	70.7	70.7	70.3	69.8	69.8	70.3
57.5°	62.6	62.1	61.6	61.6	60.8	60.3	60.3	60.3
60°	54.1	53.1	53.1	52.7	52.7	52.2	52.2	52.2
62.5°	46.0	45.5	45.5	45.5	45.5	45.0	45.0	45.0
65°	39.1	39.1	39.1	39.6	39.6	40.1	40.1	40.1
67.5°	33.8	34.2	34.2	34.2	34.7	34.7	34.7	34.2
70°	28.8	28.8	28.8	29.3	29.3	29.3	29.3	29.3
72.5°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
75°	18.9	19.4	19.4	19.4	18.9	19.4	19.4	18.9
77.5°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
80°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
82.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
85°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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)