

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: P583523

Luminaire Tested: **HC805D010-HM80520930-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583523
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-HM80520930-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 580.1 lumens
Efficiency: N/A
Efficacy: 96.7 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

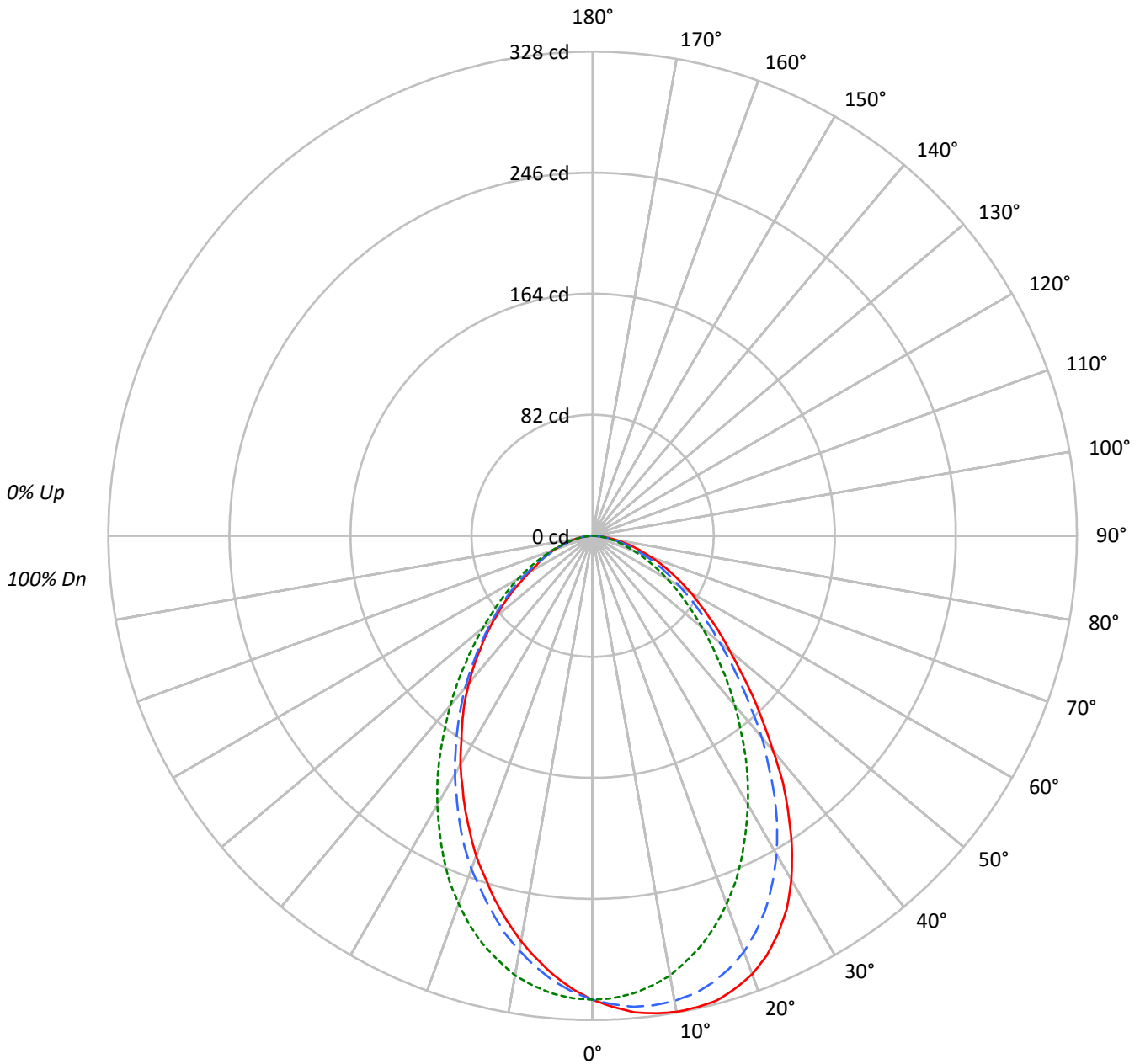
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76				76
3	94	85	78	72	92	83	77	71	81	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	60	54	64	59	54	63	57	53	51				51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9692	9692	9692
5°	10032	9636	9255
10°	10255	9469	8733
15°	10401	9149	8153
20°	10370	8706	7574
25°	10112	8142	6951
30°	9582	7488	6377
35°	8718	6776	5793
40°	7656	6026	5237
45°	6677	5299	4666
50°	5810	4644	4111
55°	5183	4080	3581
60°	4712	3583	3047
65°	4239	3108	2765
70°	3769	2651	2506
75°	3312	2240	2145
80°	2806	1829	1900
85°	2123	1344	1521



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.4	5.1
10°-20°	81.1	14.0
20°-30°	112.6	19.4
30°-40°	116.4	20.1
40°-50°	97.5	16.8
50°-60°	70.8	12.2
60°-70°	44.7	7.7
70°-80°	22.1	3.8
80°-90°	5.5	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°	223.2	38.5
0°-40°	339.6	58.5
0°-60°	507.8	87.5
0°-90°	580.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	580.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	314	314	314	314	314	
5°	324	320	311	303	299	31
15°	326	314	287	264	255	92
25°	297	278	239	213	204	136
35°	232	214	180	160	154	144
45°	153	142	122	110	107	118
55°	96	88	76	70	67	87
65°	58	51	43	38	38	58
75°	28	23	19	18	18	30
85°	6	5	4	4	4	7
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°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	319.5	319.5	319.8	319.5	319.5	319.5	319.0	319.0	318.6	318.6	317.7
5°	324.1	323.3	324.1	323.3	323.3	323.3	322.8	322.0	321.6	320.7	320.3
7.5°	326.3	325.8	325.8	325.5	325.5	325.0	324.5	324.1	322.5	322.0	320.7
10°	327.5	327.1	327.1	326.7	325.8	325.8	325.0	324.5	322.5	321.6	319.8
12.5°	327.1	327.1	327.1	326.7	325.5	325.0	324.1	322.8	321.2	319.5	317.7
15°	325.8	325.8	325.0	324.5	323.3	322.5	322.0	319.8	318.2	316.0	313.5
17.5°	321.6	321.6	321.2	320.3	319.0	318.2	317.3	315.2	313.5	310.0	307.5
20°	316.0	315.6	315.2	313.9	312.7	312.2	310.9	307.9	305.8	303.2	299.8
22.5°	307.9	307.5	307.0	306.2	304.0	303.2	302.4	300.2	296.4	293.9	289.6
25°	297.2	297.2	296.4	295.2	293.0	292.2	290.9	288.7	285.4	281.5	278.1
27.5°	284.9	284.5	283.2	282.4	280.6	279.4	277.2	274.7	271.2	268.2	264.1
30°	269.1	269.1	268.2	266.9	264.9	264.1	262.3	259.3	255.9	252.1	249.1
32.5°	251.3	251.3	249.9	249.1	247.8	245.6	245.3	241.8	238.8	235.8	232.5
35°	231.6	232.0	231.1	229.5	227.3	227.3	226.5	223.5	220.1	217.1	214.5
37.5°	212.0	210.7	210.3	209.4	208.2	206.4	205.5	204.3	201.3	199.2	195.4
40°	190.2	190.7	189.8	188.9	188.5	187.2	186.9	184.7	182.5	180.0	178.2
42.5°	170.6	170.6	170.6	169.7	168.9	167.6	167.2	165.9	163.4	161.6	159.1
45°	153.1	151.8	151.8	151.4	150.9	150.1	148.8	147.9	146.3	145.0	142.0
47.5°	136.1	136.5	136.1	135.6	134.3	133.9	133.5	131.8	130.1	128.8	126.6
50°	121.1	122.0	121.1	121.1	120.3	119.8	119.0	117.7	116.5	114.3	112.2
52.5°	108.8	108.8	108.3	107.8	106.7	105.8	105.3	105.0	102.8	101.0	99.4
55°	96.4	96.8	96.8	95.5	95.2	94.2	93.8	92.5	91.7	89.2	87.9
57.5°	85.7	85.3	85.7	84.9	84.0	83.2	82.7	81.9	80.6	78.9	77.2
60°	76.4	75.5	75.5	75.1	74.2	73.7	72.9	71.7	70.4	68.7	67.4
62.5°	66.9	66.6	66.1	65.7	64.9	64.4	63.9	62.7	61.4	60.1	58.9
65°	58.1	58.1	57.6	56.7	56.3	55.9	55.4	54.6	52.9	52.1	50.8
67.5°	49.9	49.4	49.4	48.6	47.8	47.3	47.3	46.4	45.2	43.9	43.1
70°	41.8	42.3	41.8	41.4	40.5	40.5	39.6	39.3	37.6	37.1	35.8
72.5°	34.6	34.6	34.1	34.1	33.3	32.8	32.8	32.0	31.1	30.3	29.4
75°	27.8	27.8	27.8	27.3	26.8	26.0	26.0	25.6	24.8	23.9	23.0
77.5°	21.8	21.3	21.3	20.9	20.5	20.0	20.0	19.6	18.8	18.3	17.5
80°	15.8	15.3	15.3	15.3	14.5	15.0	14.5	14.1	13.6	13.2	12.8
82.5°	10.3	10.7	10.7	10.3	9.8	9.8	9.8	9.3	9.3	9.0	8.5
85°	6.0	6.0	6.0	6.0	5.5	5.5	5.5	5.1	5.1	5.1	4.7
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.2	2.2	2.2	2.2	2.2
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°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	317.7	316.8	316.5	316.0	316.0	315.6	315.2	314.3	314.3	313.5	313.0
5°	319.5	318.2	317.3	316.5	316.0	315.2	314.3	313.0	312.7	311.3	310.0
7.5°	319.8	317.7	316.8	315.2	314.3	313.5	311.8	310.5	308.8	307.5	305.8
10°	318.2	316.5	314.3	312.2	311.8	310.5	307.9	306.2	304.0	302.4	299.8
12.5°	315.6	313.0	310.9	308.3	307.0	305.8	303.2	300.7	297.7	294.7	292.2
15°	311.3	308.3	305.4	302.4	300.7	299.4	296.4	293.4	290.4	286.6	284.0
17.5°	305.0	301.5	298.5	294.7	293.0	291.7	287.9	284.5	280.6	276.7	274.2
20°	296.9	292.5	289.2	284.9	283.6	281.5	277.7	273.8	269.6	265.3	262.3
22.5°	286.2	281.9	278.1	273.8	271.7	269.6	265.7	261.1	256.8	253.3	250.3
25°	273.8	269.9	265.3	261.4	258.9	256.3	252.1	248.3	244.4	239.3	236.3
27.5°	260.1	255.4	252.1	246.9	244.4	242.6	238.0	232.8	229.5	224.8	221.3
30°	244.8	240.6	236.6	231.6	229.0	227.3	223.0	218.3	215.0	210.3	206.8
32.5°	228.6	224.0	219.2	215.8	212.8	211.2	206.4	203.5	199.2	195.4	191.5
35°	211.2	206.4	203.0	198.3	196.7	194.9	191.0	187.2	183.4	180.0	177.0
37.5°	192.4	188.9	185.1	181.7	180.4	178.7	174.0	170.6	167.6	164.2	161.6
40°	174.0	171.1	168.4	165.1	162.9	161.6	158.2	155.3	151.8	149.7	147.1
42.5°	157.4	153.9	151.4	148.8	146.8	145.4	142.4	140.3	137.8	135.6	132.6
45°	139.9	138.1	135.1	133.1	131.8	130.1	128.0	125.4	123.3	121.5	119.5
47.5°	124.5	122.8	120.7	118.1	117.3	116.0	113.8	112.2	110.5	108.8	106.7
50°	110.5	108.3	106.7	105.0	104.0	102.8	100.7	99.8	98.5	96.8	95.5
52.5°	97.7	96.0	94.2	92.2	91.7	90.9	89.5	87.9	86.5	85.7	84.9
55°	86.2	84.4	83.2	81.5	81.0	80.2	78.5	77.6	76.7	75.9	75.1
57.5°	75.9	74.2	72.5	71.7	70.7	69.9	69.5	68.2	67.4	66.9	66.1
60°	66.6	64.9	63.6	62.2	61.9	61.4	60.6	59.7	58.9	58.1	57.6
62.5°	57.6	55.9	55.1	54.2	53.3	53.3	52.4	51.6	50.8	50.3	49.4
65°	49.4	48.6	47.3	46.1	45.6	45.6	44.4	43.9	43.5	42.6	41.8
67.5°	41.8	40.9	39.6	39.3	38.8	38.4	37.9	37.1	36.3	35.8	35.0
70°	35.0	34.1	33.3	32.8	32.4	32.0	31.1	30.8	29.8	29.4	29.0
72.5°	28.1	27.8	26.8	26.5	26.0	25.6	25.1	24.8	23.9	23.5	23.0
75°	22.6	22.1	21.3	20.9	20.5	20.5	20.0	19.2	18.8	18.8	18.3
77.5°	17.1	16.6	16.2	15.8	15.3	15.3	15.0	14.5	14.1	14.1	13.6
80°	12.3	12.0	11.5	11.5	11.5	11.1	10.7	10.7	10.3	10.3	9.8
82.5°	8.1	8.1	7.7	7.7	7.7	7.3	7.3	6.8	6.8	6.8	6.8
85°	4.7	4.7	4.7	4.3	4.3	4.3	4.3	4.3	4.3	3.8	4.3
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.7	1.7	1.7
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°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	312.7	312.2	311.3	311.3	310.5	310.5	310.0	309.7	309.2	308.8	308.3
5°	309.7	307.9	307.0	306.7	305.8	305.4	304.0	303.2	302.8	302.0	301.0
7.5°	304.0	302.4	300.7	300.2	299.8	298.2	296.9	295.5	294.7	293.9	293.0
10°	297.7	296.0	293.9	293.0	292.2	290.0	288.4	287.0	285.4	283.6	283.2
12.5°	290.0	287.4	284.9	284.0	282.7	280.6	278.9	276.7	275.5	273.4	272.9
15°	281.1	278.1	275.9	273.8	272.9	270.9	267.9	266.1	263.6	262.7	260.6
17.5°	270.4	267.4	264.4	263.6	262.3	259.3	256.3	254.2	251.6	250.3	249.1
20°	259.3	255.4	252.4	251.6	249.9	247.4	244.4	242.3	240.1	237.6	236.3
22.5°	246.5	242.3	239.6	237.6	237.1	234.1	230.8	229.0	227.3	225.2	223.5
25°	232.5	228.6	225.6	224.0	223.0	220.5	218.0	215.8	213.3	212.0	209.8
27.5°	218.0	215.3	211.5	209.8	208.5	206.4	203.5	202.2	199.5	197.9	196.7
30°	203.8	200.0	197.9	195.7	194.5	192.4	189.8	188.5	186.4	184.7	183.4
32.5°	188.5	185.9	183.0	182.1	180.4	178.2	176.6	174.4	172.7	171.1	170.6
35°	174.4	171.1	168.1	167.2	165.9	163.7	162.9	161.6	159.6	159.1	157.4
37.5°	159.1	157.4	153.9	152.7	152.3	150.6	148.8	147.9	146.8	145.4	145.0
40°	144.6	142.4	140.8	139.5	138.6	137.3	135.6	135.1	134.3	132.6	132.3
42.5°	131.0	128.8	127.1	126.6	125.4	124.1	123.3	122.0	121.5	121.1	120.3
45°	117.7	116.5	114.7	114.3	113.8	112.2	111.3	110.5	109.6	109.2	108.3
47.5°	105.8	104.5	103.2	102.8	102.0	101.5	100.2	99.8	98.5	98.0	97.7
50°	94.2	93.4	92.5	92.2	91.2	90.9	90.0	89.2	88.3	87.9	87.4
52.5°	84.0	83.2	82.4	81.9	81.5	80.6	79.7	78.9	78.5	78.0	77.6
55°	74.2	73.4	72.9	72.5	72.1	71.7	70.4	69.9	69.5	69.1	68.2
57.5°	65.2	64.4	63.6	63.6	63.1	62.7	61.9	61.0	61.0	60.1	59.3
60°	57.1	56.3	55.4	55.1	54.6	53.7	53.3	52.9	52.4	52.1	51.2
62.5°	48.6	48.2	47.3	47.3	46.4	46.1	45.6	45.2	44.8	43.9	43.5
65°	41.4	40.9	40.1	39.6	39.6	39.3	38.4	37.9	37.6	37.6	37.1
67.5°	34.6	34.1	33.3	32.8	32.8	32.4	32.0	32.0	31.6	31.1	31.6
70°	28.6	27.8	27.8	27.3	27.3	26.8	26.5	26.5	26.5	26.8	26.8
72.5°	22.6	22.1	21.8	21.8	21.8	21.8	21.3	21.3	21.8	22.1	22.1
75°	18.0	17.5	17.5	17.5	17.1	17.1	17.5	17.5	18.0	18.0	18.0
77.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.6	13.6	14.1	14.1	14.1
80°	9.8	9.8	9.8	9.8	9.8	10.3	10.3	10.3	10.3	10.3	10.7
82.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	7.3	7.3	7.3	7.3
85°	3.8	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	314.3	314.3	314.3	314.3	314.3	314.3	314.3	314.3
2.5°	307.9	307.9	307.9	308.3	307.5	307.5	307.5	307.5
5°	300.7	300.2	299.8	300.2	299.4	299.4	299.0	299.0
7.5°	291.7	291.3	290.9	290.9	290.0	290.0	289.6	289.2
10°	281.9	281.1	281.5	280.6	280.2	279.7	279.4	278.9
12.5°	271.2	270.4	269.9	269.1	268.2	267.9	268.2	267.4
15°	259.7	258.4	258.1	257.1	256.3	255.9	255.9	255.4
17.5°	246.9	246.1	245.6	244.8	244.4	243.5	243.1	242.6
20°	235.0	232.8	233.3	232.5	232.0	230.3	230.3	230.8
22.5°	221.8	220.5	219.6	218.8	218.3	217.5	217.5	217.1
25°	208.5	207.3	206.8	206.0	205.5	204.7	204.3	204.3
27.5°	195.7	194.0	194.0	193.2	192.4	191.9	191.5	191.0
30°	182.1	180.9	180.4	180.4	180.0	180.0	178.7	179.1
32.5°	169.4	168.4	168.1	167.2	167.2	166.7	166.7	165.4
35°	156.6	155.3	155.7	154.8	154.4	153.9	154.4	153.9
37.5°	144.1	143.3	143.3	142.4	142.4	142.0	141.6	142.4
40°	131.8	131.3	131.0	130.5	131.0	130.5	129.6	130.1
42.5°	119.5	119.5	119.0	119.0	118.6	118.6	118.6	118.6
45°	108.3	107.8	107.8	107.5	107.5	107.5	107.5	107.0
47.5°	97.2	96.8	96.8	96.8	96.4	96.4	96.0	96.4
50°	86.5	86.5	86.2	86.2	86.5	86.2	85.7	85.7
52.5°	76.7	76.7	76.4	76.4	75.9	75.5	75.9	75.9
55°	67.9	67.4	66.9	66.9	66.6	66.1	66.1	66.6
57.5°	59.3	58.9	58.4	58.4	57.6	57.1	57.1	57.1
60°	51.2	50.3	50.3	49.9	49.9	49.4	49.4	49.4
62.5°	43.5	43.1	43.1	43.1	43.1	42.6	42.6	42.6
65°	37.1	37.1	37.1	37.6	37.6	37.9	37.9	37.9
67.5°	32.0	32.4	32.4	32.4	32.8	32.8	32.8	32.4
70°	27.3	27.3	27.3	27.8	27.8	27.8	27.8	27.8
72.5°	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6
75°	18.0	18.3	18.3	18.3	18.0	18.3	18.3	18.0
77.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
80°	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
82.5°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
85°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)