

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: P583454

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC805D010-HM80520830-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 587.9 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.07 / 1.16
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

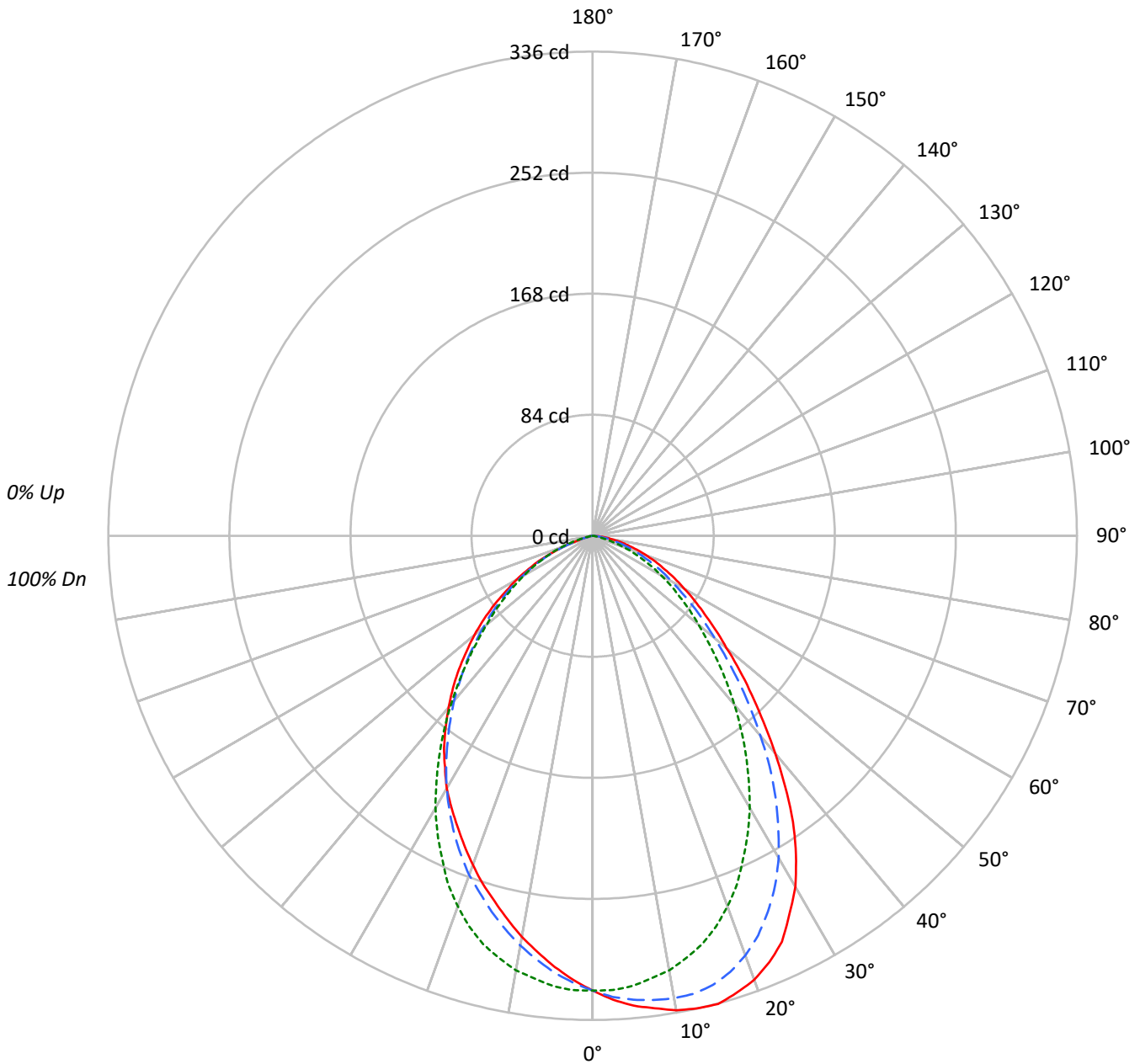
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	63	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	47																			
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43																			
8	66	54	46	41	65	53	46	41	52	46	41	51	45	41	50	44	40	39																			
9	62	50	43	37	61	50	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9732	9732	9732
5°	10134	9710	9299
10°	10471	9588	8849
15°	10739	9367	8386
20°	10760	8978	7974
25°	10578	8411	7560
30°	10013	7762	7207
35°	9129	6979	6768
40°	7934	6155	6251
45°	6807	5329	5722
50°	5819	4596	5138
55°	5097	3957	4468
60°	4539	3373	3750
65°	4028	2751	2999
70°	3570	2038	1704
75°	2979	1072	500
80°	2344	337	89
85°	1663	177	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	5.1
10°-20°	83.3	14.2
20°-30°	118.0	20.1
30°-40°	123.4	21.0
40°-50°	102.9	17.5
50°-60°	73.0	12.4
60°-70°	42.0	7.2
70°-80°	13.5	2.3
80°-90°	1.9	0.3
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°	231.1	39.3
0°-40°	354.5	60.3
0°-60°	530.4	90.2
0°-90°	587.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	587.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	316	316	316	316	316	
5°	327	323	314	304	300	31
15°	336	323	293	270	263	95
25°	311	288	247	227	222	142
35°	242	221	185	176	180	150
45°	156	143	122	124	131	121
55°	95	85	74	77	83	86
65°	55	46	38	38	41	55
75°	25	18	9	4	4	27
85°	5	2	0	0	0	6
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°	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6
2.5°	322.2	321.8	321.3	321.8	321.3	321.8	321.3	321.3	320.8	320.3	320.3
5°	327.4	326.9	326.9	326.9	326.4	325.9	325.9	325.5	324.5	324.0	323.2
7.5°	330.7	331.2	331.2	331.2	330.3	330.3	329.3	328.3	327.4	326.4	325.0
10°	334.4	334.4	334.0	333.5	332.5	332.0	331.7	330.7	329.3	327.4	325.9
12.5°	335.9	335.9	335.4	334.4	334.0	333.5	333.0	331.7	329.8	327.4	325.5
15°	336.4	335.4	334.9	334.4	333.5	332.0	332.0	330.3	327.9	325.0	322.7
17.5°	332.5	333.0	332.0	331.2	329.8	328.8	327.4	325.9	323.2	319.8	317.4
20°	327.9	327.4	326.9	325.5	323.7	323.2	321.8	319.4	317.0	313.3	309.9
22.5°	320.3	319.8	318.9	317.9	316.0	315.2	313.7	310.9	307.6	303.8	300.1
25°	310.9	309.9	308.5	306.7	305.2	304.3	302.4	299.6	295.8	291.6	287.8
27.5°	295.8	297.2	296.3	293.4	292.1	290.2	289.7	285.8	282.6	278.3	274.1
30°	281.2	281.2	279.7	278.3	276.0	274.6	272.7	269.8	266.6	261.3	258.1
32.5°	262.7	262.3	260.3	260.0	258.1	255.2	254.7	251.0	247.7	243.9	239.6
35°	242.5	241.6	239.6	238.2	237.2	235.9	234.5	231.1	227.9	224.1	221.2
37.5°	219.4	219.4	218.9	216.5	215.6	214.6	213.2	210.0	208.0	204.2	201.5
40°	197.1	196.7	195.4	194.9	193.9	192.5	191.5	189.6	186.9	184.0	181.1
42.5°	175.5	176.0	174.0	174.5	172.6	171.8	171.3	168.4	167.0	164.1	161.8
45°	156.1	155.7	154.8	154.3	153.3	152.4	151.4	150.0	147.7	144.8	143.4
47.5°	138.3	136.8	136.8	136.3	135.9	133.9	133.5	132.0	130.7	127.8	125.9
50°	121.3	121.3	121.3	120.8	119.3	118.9	117.9	116.5	115.2	113.2	110.4
52.5°	107.6	107.6	107.6	107.1	105.2	104.7	104.3	102.3	100.4	99.1	97.2
55°	94.8	95.3	94.8	93.8	92.4	92.4	91.1	90.1	88.2	86.8	84.9
57.5°	84.0	84.0	83.1	82.6	81.6	81.2	80.2	79.2	76.8	75.5	73.1
60°	73.6	73.1	73.1	72.2	71.2	70.3	69.8	68.3	67.5	65.1	63.2
62.5°	64.2	64.2	63.2	63.2	61.3	61.3	60.8	59.5	58.1	55.7	54.7
65°	55.2	55.2	54.7	54.2	52.8	52.3	51.9	50.5	49.1	47.6	46.2
67.5°	47.2	47.2	46.2	45.7	44.8	44.3	43.5	42.5	41.1	39.6	38.2
70°	39.6	39.1	38.7	38.2	37.2	36.7	35.9	35.0	33.5	32.6	31.1
72.5°	32.1	32.1	31.6	30.6	30.2	29.7	29.2	28.2	26.9	25.5	24.5
75°	25.0	25.0	25.0	24.1	23.1	22.6	22.6	21.7	20.7	19.4	18.4
77.5°	19.4	18.9	18.4	18.4	17.5	17.0	16.5	16.0	14.6	14.1	13.2
80°	13.2	13.6	13.2	12.7	12.2	11.9	11.9	10.9	10.4	9.5	8.5
82.5°	9.0	8.5	8.5	8.0	8.0	7.5	7.5	6.6	6.1	5.6	5.1
85°	4.7	4.7	4.2	4.2	4.2	3.8	3.8	3.4	3.4	2.9	2.4
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0
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°	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6
2.5°	319.8	318.9	318.4	318.4	317.9	317.4	317.0	316.5	315.6	315.6	314.7
5°	322.2	321.3	320.8	319.4	318.4	318.4	316.5	316.0	314.7	313.7	312.8
7.5°	324.0	322.2	320.8	319.4	318.4	317.4	315.6	313.7	311.8	309.9	308.9
10°	324.0	322.2	319.8	317.4	316.5	315.6	313.3	310.4	308.0	306.2	303.8
12.5°	323.2	320.3	317.4	315.6	313.7	312.3	309.4	306.7	303.8	300.1	298.2
15°	320.3	316.5	313.7	310.4	308.9	306.7	304.3	300.1	296.7	293.4	291.1
17.5°	314.7	309.9	306.7	303.3	300.9	299.6	295.8	292.1	288.2	284.4	281.7
20°	306.2	301.9	298.2	293.9	292.1	290.2	285.4	281.7	277.8	273.6	270.8
22.5°	295.8	291.6	286.3	283.1	280.2	277.8	273.6	269.3	265.6	261.8	258.1
25°	283.1	278.8	274.1	268.8	267.1	264.7	260.0	255.7	251.5	247.2	243.9
27.5°	269.3	263.7	260.0	254.2	252.3	250.1	244.8	240.1	236.3	233.1	229.2
30°	252.8	248.6	243.5	238.2	236.3	234.0	229.7	225.5	221.7	218.0	214.1
32.5°	235.0	230.7	225.5	221.7	218.9	217.0	212.7	209.0	205.2	201.5	198.1
35°	216.1	211.4	207.6	203.8	201.5	199.1	194.9	191.5	188.6	185.4	182.1
37.5°	196.7	193.4	189.6	185.4	183.0	181.1	177.9	174.0	171.8	168.9	166.5
40°	177.9	174.0	170.8	167.0	165.1	163.7	160.4	157.5	155.3	152.9	151.4
42.5°	158.5	155.3	151.9	149.5	148.1	146.8	144.4	141.0	139.7	137.3	135.9
45°	140.5	137.8	135.4	132.0	131.2	130.2	127.4	125.0	123.7	122.2	121.3
47.5°	123.7	121.7	118.9	116.9	115.6	114.7	112.8	110.8	109.4	108.4	107.6
50°	108.9	106.7	104.7	102.8	101.9	100.4	98.6	97.7	96.7	95.8	95.8
52.5°	95.3	92.9	91.1	89.7	88.7	87.7	86.3	85.8	84.9	84.9	84.4
55°	82.6	81.2	79.2	77.3	76.8	76.4	75.5	74.6	74.1	73.6	74.1
57.5°	71.7	70.3	68.3	67.0	66.6	66.1	65.6	64.6	64.2	64.2	64.2
60°	61.8	60.3	59.0	57.6	57.6	56.6	56.1	55.7	55.2	54.7	54.7
62.5°	52.8	51.5	50.0	49.1	48.6	48.1	47.2	46.7	46.2	46.2	45.7
65°	44.8	43.0	42.5	41.1	40.6	40.1	39.6	38.7	38.2	37.7	37.2
67.5°	36.7	35.9	34.5	33.5	33.0	32.6	32.1	31.1	30.6	30.2	29.2
70°	29.7	28.7	27.9	26.9	26.5	26.0	25.0	24.1	23.6	22.6	21.2
72.5°	23.1	22.1	21.2	20.2	19.9	19.4	18.4	17.5	16.5	15.6	14.6
75°	17.5	16.5	15.1	14.1	13.6	13.6	12.2	11.4	10.4	9.0	8.0
77.5°	12.2	10.9	10.4	9.5	9.0	8.0	7.1	6.1	5.1	4.7	3.8
80°	8.0	7.1	6.1	5.6	5.1	4.7	4.2	3.4	2.4	1.9	1.4
82.5°	4.7	4.2	3.8	3.4	2.9	2.4	1.9	1.9	1.4	1.0	0.5
85°	2.4	1.9	1.4	1.4	1.0	1.0	1.0	0.5	0.5	0.5	0.5
87.5°	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
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°	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6
2.5°	314.2	313.7	313.3	312.8	312.8	311.8	311.8	311.3	310.4	309.9	309.9
5°	311.3	309.9	308.9	308.5	308.0	306.7	306.2	305.2	304.3	303.3	302.8
7.5°	307.2	304.8	303.8	303.3	301.9	300.4	299.6	298.2	296.7	295.3	294.8
10°	301.9	299.6	297.2	296.3	294.8	293.9	292.1	290.2	288.7	287.3	285.8
12.5°	295.3	292.4	290.2	289.2	287.8	285.8	283.1	282.1	279.7	278.8	276.9
15°	287.8	284.4	282.1	280.7	279.3	276.4	274.6	272.7	270.3	269.3	267.5
17.5°	278.3	274.6	272.2	270.8	269.8	267.5	264.7	262.3	260.0	259.0	257.6
20°	267.1	264.7	261.3	260.0	259.0	256.2	253.3	252.3	250.5	248.6	247.2
22.5°	254.2	252.0	248.6	247.2	246.7	244.3	242.0	240.6	239.2	237.7	236.3
25°	241.1	238.2	235.4	234.5	233.5	231.6	229.7	228.7	227.4	226.5	225.5
27.5°	227.0	224.1	221.7	220.2	219.4	218.0	217.0	216.1	215.1	214.1	213.7
30°	211.9	209.0	207.1	206.1	205.2	204.7	203.4	202.9	202.4	201.5	201.9
32.5°	196.7	194.4	192.5	191.0	191.0	190.1	189.6	189.6	189.1	189.1	189.1
35°	180.1	178.8	177.4	176.9	176.4	176.0	175.5	176.0	175.5	176.0	176.4
37.5°	165.1	163.7	162.8	162.3	161.8	162.3	161.8	161.8	162.3	163.3	163.7
40°	149.5	148.5	147.7	148.1	147.7	147.7	147.7	149.0	149.5	150.0	150.5
42.5°	134.9	133.9	133.5	133.5	133.9	133.5	134.4	134.9	135.9	137.3	138.3
45°	120.8	120.3	120.3	120.8	120.3	121.3	121.3	122.2	123.7	124.5	125.4
47.5°	107.6	107.6	107.6	108.0	108.0	108.4	109.4	109.9	110.8	111.8	112.8
50°	95.3	95.8	96.2	96.2	96.2	97.2	98.2	98.6	99.1	99.6	100.9
52.5°	84.4	84.9	84.9	85.3	85.8	86.3	86.8	87.7	88.2	89.2	89.7
55°	74.1	74.1	75.1	75.5	75.5	75.5	76.4	76.4	77.3	77.8	78.8
57.5°	64.2	64.6	64.6	65.1	65.1	65.6	66.1	66.6	67.0	67.5	68.0
60°	54.7	54.7	54.7	55.2	55.7	56.1	55.7	56.6	56.6	57.6	58.1
62.5°	45.7	46.2	46.2	46.2	46.2	46.2	46.2	46.7	47.2	47.6	48.1
65°	37.2	37.2	37.2	36.7	37.2	36.7	37.2	37.7	37.7	38.2	38.7
67.5°	28.7	28.7	27.9	27.9	28.2	28.2	28.2	28.2	27.9	28.7	28.7
70°	20.7	20.2	19.9	19.4	19.4	18.9	18.9	18.4	18.4	18.4	18.4
72.5°	13.6	12.7	11.9	11.4	10.9	10.9	9.9	9.5	9.9	9.9	9.9
75°	7.1	6.1	5.6	5.1	4.7	4.7	4.2	4.2	4.2	4.2	4.2
77.5°	2.9	2.4	1.9	1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.0	0.0	0.5	0.0	0.5	0.5	0.5	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P583454

CATALOG NUMBER: HC805D010-HM80520830-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6
2.5°	309.4	309.4	308.9	309.4	308.5	308.9	308.5	308.5
5°	302.4	301.4	301.4	301.4	300.9	300.9	300.4	300.4
7.5°	293.9	293.4	292.9	292.4	292.1	291.6	291.6	291.6
10°	285.4	284.4	284.4	284.0	283.1	282.6	282.6	282.6
12.5°	275.5	275.1	274.6	274.6	272.7	273.2	272.7	272.7
15°	266.1	265.6	265.6	264.2	263.2	263.2	263.2	262.7
17.5°	256.2	255.7	255.2	254.2	253.3	253.3	252.8	253.3
20°	245.7	245.3	244.3	244.3	243.9	243.5	242.5	243.0
22.5°	235.4	234.5	234.0	234.0	233.5	233.5	232.6	232.6
25°	224.6	224.1	223.6	224.1	223.1	223.1	222.2	222.2
27.5°	213.2	212.7	212.7	212.7	212.2	212.7	212.2	212.2
30°	201.9	201.9	201.5	201.5	201.9	201.5	201.9	202.4
32.5°	189.6	189.6	190.1	190.1	190.6	190.6	190.6	190.6
35°	176.9	177.9	177.9	178.4	178.8	179.3	179.3	179.8
37.5°	165.1	165.5	166.0	166.5	167.5	167.5	167.5	167.5
40°	152.4	152.9	153.8	153.3	155.3	155.7	155.3	155.3
42.5°	139.2	140.0	140.5	141.5	142.0	142.9	143.4	143.4
45°	126.9	127.4	128.3	129.3	129.8	131.2	131.2	131.2
47.5°	114.2	115.2	115.6	116.5	116.9	118.4	118.9	118.4
50°	101.9	102.8	103.8	103.8	105.2	105.7	106.7	107.1
52.5°	90.1	90.6	91.6	92.0	92.9	93.8	94.3	94.8
55°	78.8	79.2	80.2	80.2	81.6	82.1	83.1	83.1
57.5°	68.3	68.8	69.8	69.3	70.3	71.2	71.2	70.7
60°	58.5	58.5	58.5	59.5	60.0	60.3	60.8	60.8
62.5°	48.1	49.1	49.6	49.6	50.0	50.5	50.5	50.0
65°	38.7	39.6	40.1	40.1	40.6	40.6	40.6	41.1
67.5°	29.2	29.2	29.2	29.7	29.2	29.2	29.2	29.2
70°	18.4	18.4	18.4	18.4	18.0	18.4	18.4	18.9
72.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
75°	4.2	4.2	4.2	4.7	4.2	4.2	4.2	4.2
77.5°	1.9	1.4	1.9	1.9	1.4	1.4	1.4	1.4
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)