

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: P583539

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583539
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-HM80520935-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 561.3 lumens
Efficiency: N/A
Efficacy: 93.5 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

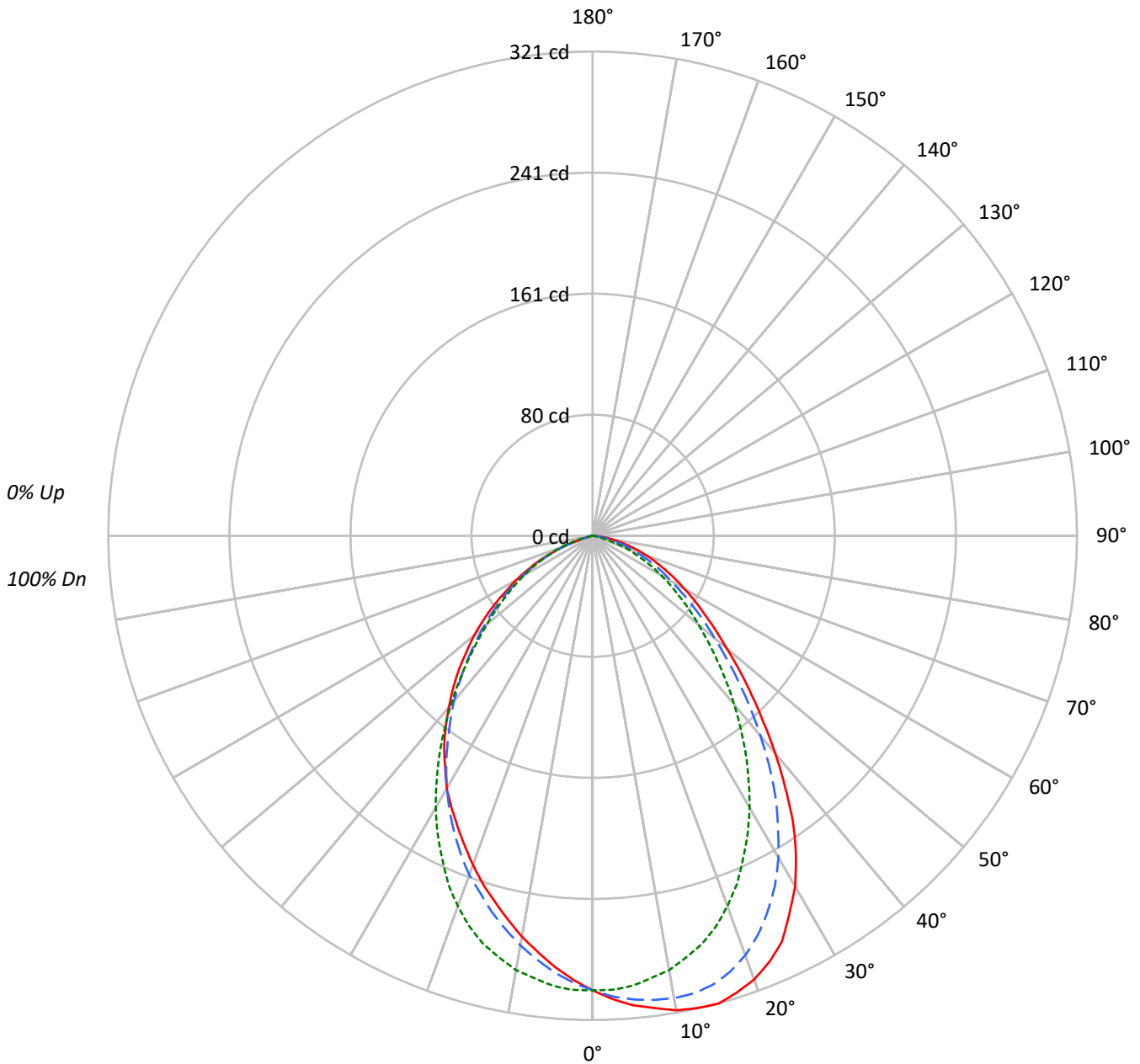
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9291	9291	9291
5°	9673	9271	8881
10°	10001	9153	8448
15°	10254	8942	8010
20°	10271	8571	7613
25°	10102	8030	7217
30°	9560	7406	6879
35°	8715	6663	6460
40°	7580	5873	5966
45°	6498	5089	5460
50°	5550	4390	4903
55°	4865	3779	4258
60°	4336	3219	3583
65°	3845	2627	2853
70°	3408	1956	1632
75°	2836	1013	488
80°	2237	320	89
85°	1592	177	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	5.1
10°-20°	79.6	14.2
20°-30°	112.6	20.1
30°-40°	117.8	21.0
40°-50°	98.3	17.5
50°-60°	69.7	12.4
60°-70°	40.1	7.2
70°-80°	12.9	2.3
80°-90°	1.8	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°	220.6	39.3
0°-40°	338.4	60.3
0°-60°	506.4	90.2
0°-90°	561.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	561.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	301	301	301	301	301	
5°	312	309	300	290	287	30
15°	321	308	280	258	251	90
25°	297	275	236	217	212	135
35°	232	211	177	168	172	144
45°	149	137	117	118	125	116
55°	90	81	70	74	79	82
65°	53	44	36	36	39	53
75°	24	18	8	4	4	26
85°	4	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°	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3
2.5°	307.6	307.2	306.7	307.2	306.7	307.2	306.7	306.7	306.3	305.8	305.8
5°	312.5	312.2	312.2	312.2	311.7	311.2	311.2	310.7	309.9	309.4	308.6
7.5°	315.8	316.1	316.1	316.1	315.3	315.3	314.3	313.5	312.5	311.7	310.4
10°	319.4	319.4	318.9	318.4	317.6	317.1	316.6	315.8	314.3	312.5	311.2
12.5°	320.7	320.7	320.2	319.4	318.9	318.4	318.0	316.6	314.8	312.5	310.7
15°	321.2	320.2	319.8	319.4	318.4	317.1	317.1	315.3	313.0	310.4	308.1
17.5°	317.6	318.0	317.1	316.1	314.8	314.0	312.5	311.2	308.6	305.4	303.1
20°	313.0	312.5	312.2	310.7	308.9	308.6	307.2	304.9	302.7	299.0	295.9
22.5°	305.8	305.4	304.5	303.6	301.8	300.9	299.5	296.9	293.6	290.0	286.4
25°	296.9	295.9	294.6	292.8	291.5	290.5	288.7	286.0	282.4	278.3	274.7
27.5°	282.4	283.8	282.9	280.1	278.8	277.0	276.5	272.9	269.8	265.7	261.7
30°	268.5	268.5	267.1	265.7	263.5	262.1	260.3	257.6	254.5	249.6	246.3
32.5°	250.9	250.4	248.6	248.1	246.3	243.7	243.2	239.6	236.4	232.8	228.7
35°	231.5	230.7	228.7	227.4	226.6	225.2	223.8	220.7	217.5	213.9	211.3
37.5°	209.5	209.5	209.0	206.7	205.9	204.9	203.6	200.4	198.6	195.0	192.4
40°	188.3	187.8	186.5	186.0	185.2	183.7	182.9	181.1	178.4	175.6	173.0
42.5°	167.6	168.1	166.1	166.6	164.8	164.0	163.5	160.8	159.4	156.7	154.5
45°	149.0	148.7	147.7	147.2	146.4	145.4	144.6	143.3	141.0	138.3	136.9
47.5°	131.9	130.6	130.6	130.1	129.8	128.0	127.5	126.2	124.7	122.1	120.3
50°	115.7	115.7	115.7	115.3	114.0	113.5	112.6	111.2	109.9	108.1	105.3
52.5°	102.7	102.7	102.7	102.2	100.4	99.9	99.6	97.8	95.9	94.6	92.8
55°	90.5	91.0	90.5	89.7	88.3	88.3	86.9	86.1	84.3	82.8	81.0
57.5°	80.2	80.2	79.2	78.8	77.9	77.4	76.6	75.7	73.4	72.1	69.8
60°	70.3	69.8	69.8	68.9	68.0	67.2	66.7	65.4	64.4	62.1	60.3
62.5°	61.3	61.3	60.3	60.3	58.5	58.5	58.1	56.7	55.4	53.1	52.2
65°	52.7	52.7	52.2	51.8	50.4	50.0	49.6	48.2	46.8	45.5	44.2
67.5°	45.0	45.0	44.2	43.7	42.7	42.4	41.4	40.6	39.1	37.8	36.5
70°	37.8	37.3	37.0	36.5	35.6	35.1	34.2	33.3	32.0	31.1	29.7
72.5°	30.6	30.6	30.2	29.3	28.8	28.4	27.9	27.1	25.6	24.3	23.5
75°	23.8	23.8	23.8	23.0	22.0	21.7	21.7	20.7	19.9	18.4	17.6
77.5°	18.4	18.1	17.6	17.6	16.6	16.2	15.8	15.3	14.0	13.5	12.6
80°	12.6	13.0	12.6	12.2	11.7	11.3	11.3	10.4	9.9	9.0	8.1
82.5°	8.5	8.1	8.1	7.7	7.7	7.2	7.2	6.3	5.9	5.4	4.9
85°	4.5	4.5	4.1	4.1	4.1	3.6	3.6	3.1	3.1	2.8	2.3
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	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°	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3
2.5°	305.4	304.5	304.0	304.0	303.6	303.1	302.7	302.2	301.3	301.3	300.4
5°	307.6	306.7	306.3	304.9	304.0	304.0	302.2	301.8	300.4	299.5	298.7
7.5°	309.4	307.6	306.3	304.9	304.0	303.1	301.3	299.5	297.7	295.9	295.1
10°	309.4	307.6	305.4	303.1	302.2	301.3	299.0	296.4	294.1	292.3	290.0
12.5°	308.6	305.8	303.1	301.3	299.5	298.2	295.4	292.8	290.0	286.4	284.6
15°	305.8	302.2	299.5	296.4	295.1	292.8	290.5	286.4	283.3	280.1	277.9
17.5°	300.4	295.9	292.8	289.6	287.4	286.0	282.4	278.8	275.2	271.6	268.8
20°	292.3	288.2	284.6	280.6	278.8	277.0	272.4	268.8	265.3	261.2	258.6
22.5°	282.4	278.3	273.4	270.3	267.5	265.3	261.2	257.2	253.5	249.9	246.3
25°	270.3	266.2	261.7	256.8	255.0	252.7	248.1	244.1	240.1	236.0	232.8
27.5°	257.2	251.7	248.1	242.8	241.0	238.7	233.8	229.2	225.6	222.5	218.9
30°	241.4	237.4	232.5	227.4	225.6	223.4	219.3	215.3	211.7	208.0	204.4
32.5°	224.3	220.2	215.3	211.7	209.0	207.2	203.1	199.5	195.9	192.4	189.1
35°	206.2	201.8	198.2	194.6	192.4	190.1	186.0	182.9	180.1	177.0	173.8
37.5°	187.8	184.7	181.1	177.0	174.8	173.0	169.9	166.1	164.0	161.2	159.0
40°	169.9	166.1	163.0	159.4	157.6	156.3	153.1	150.5	148.2	145.9	144.6
42.5°	151.3	148.2	145.1	142.8	141.5	140.0	137.8	134.7	133.3	131.1	129.8
45°	134.2	131.6	129.3	126.2	125.2	124.4	121.6	119.3	118.0	116.7	115.7
47.5°	118.0	116.2	113.5	111.7	110.4	109.4	107.6	105.8	104.5	103.5	102.7
50°	104.0	101.7	99.9	98.2	97.3	95.9	94.1	93.2	92.3	91.5	91.5
52.5°	91.0	88.7	86.9	85.6	84.6	83.8	82.5	82.0	81.0	81.0	80.7
55°	78.8	77.4	75.7	73.9	73.4	73.0	72.1	71.2	70.7	70.3	70.7
57.5°	68.5	67.2	65.4	63.9	63.6	63.1	62.6	61.8	61.3	61.3	61.3
60°	59.0	57.7	56.3	54.9	54.9	54.1	53.6	53.1	52.7	52.2	52.2
62.5°	50.4	49.1	47.8	46.8	46.4	46.0	45.0	44.6	44.2	44.2	43.7
65°	42.7	40.9	40.6	39.1	38.8	38.3	37.8	37.0	36.5	36.0	35.6
67.5°	35.1	34.2	32.9	32.0	31.5	31.1	30.6	29.7	29.3	28.8	27.9
70°	28.4	27.5	26.6	25.6	25.3	24.8	23.8	23.0	22.5	21.7	20.2
72.5°	22.0	21.2	20.2	19.4	18.9	18.4	17.6	16.6	15.8	14.8	14.0
75°	16.6	15.8	14.4	13.5	13.0	13.0	11.7	10.8	9.9	8.5	7.7
77.5°	11.7	10.4	9.9	9.0	8.5	7.7	6.7	5.9	4.9	4.5	3.6
80°	7.7	6.7	5.9	5.4	4.9	4.5	4.1	3.1	2.3	1.8	1.3
82.5°	4.5	4.1	3.6	3.1	2.8	2.3	1.8	1.8	1.3	1.0	0.5
85°	2.3	1.8	1.3	1.3	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°	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3
2.5°	300.0	299.5	299.0	298.7	298.7	297.7	297.7	297.2	296.4	295.9	295.9
5°	297.2	295.9	295.1	294.6	294.1	292.8	292.3	291.5	290.5	289.6	289.2
7.5°	293.3	291.0	290.0	289.6	288.2	286.9	286.0	284.6	283.3	281.9	281.5
10°	288.2	286.0	283.8	282.9	281.5	280.6	278.8	277.0	275.7	274.4	272.9
12.5°	281.9	279.3	277.0	276.1	274.7	272.9	270.3	269.3	267.1	266.2	264.4
15°	274.7	271.6	269.3	268.0	266.7	263.9	262.1	260.3	258.1	257.2	255.3
17.5°	265.7	262.1	259.9	258.6	257.6	255.3	252.7	250.4	248.1	247.3	245.9
20°	255.0	252.7	249.6	248.1	247.3	244.5	241.9	241.0	239.2	237.4	236.0
22.5°	242.8	240.5	237.4	236.0	235.6	233.3	231.0	229.7	228.4	227.0	225.6
25°	230.2	227.4	224.8	223.8	223.0	221.2	219.3	218.5	217.1	216.2	215.3
27.5°	216.7	213.9	211.7	210.3	209.5	208.0	207.2	206.2	205.4	204.4	204.1
30°	202.2	199.5	197.7	196.8	195.9	195.5	194.2	193.7	193.2	192.4	192.7
32.5°	187.8	185.5	183.7	182.4	182.4	181.5	181.1	181.1	180.6	180.6	180.6
35°	172.0	170.7	169.4	168.9	168.4	168.1	167.6	168.1	167.6	168.1	168.4
37.5°	157.6	156.3	155.4	154.9	154.5	154.9	154.5	154.5	154.9	155.8	156.3
40°	142.8	141.8	141.0	141.5	141.0	141.0	141.0	142.3	142.8	143.3	143.6
42.5°	128.8	128.0	127.5	127.5	128.0	127.5	128.3	128.8	129.8	131.1	131.9
45°	115.3	114.9	114.9	115.3	114.9	115.7	115.7	116.7	118.0	118.9	119.8
47.5°	102.7	102.7	102.7	103.2	103.2	103.5	104.5	105.0	105.8	106.8	107.6
50°	91.0	91.5	91.9	91.9	91.9	92.8	93.7	94.1	94.6	95.0	96.4
52.5°	80.7	81.0	81.0	81.5	82.0	82.5	82.8	83.8	84.3	85.1	85.6
55°	70.7	70.7	71.6	72.1	72.1	72.1	73.0	73.0	73.9	74.3	75.2
57.5°	61.3	61.8	61.8	62.1	62.1	62.6	63.1	63.6	63.9	64.4	64.9
60°	52.2	52.2	52.2	52.7	53.1	53.6	53.1	54.1	54.1	54.9	55.4
62.5°	43.7	44.2	44.2	44.2	44.2	44.2	44.2	44.6	45.0	45.5	46.0
65°	35.6	35.6	35.6	35.1	35.6	35.1	35.6	36.0	36.0	36.5	37.0
67.5°	27.5	27.5	26.6	26.6	27.1	27.1	27.1	27.1	26.6	27.5	27.5
70°	19.9	19.4	18.9	18.4	18.4	18.1	18.1	17.6	17.6	17.6	17.6
72.5°	13.0	12.2	11.3	10.8	10.4	10.4	9.5	9.0	9.5	9.5	9.5
75°	6.7	5.9	5.4	4.9	4.5	4.5	4.1	4.1	4.1	4.1	4.1
77.5°	2.8	2.3	1.8	1.8	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	301.3	301.3	301.3	301.3	301.3	301.3	301.3	301.3
2.5°	295.4	295.4	295.1	295.4	294.6	295.1	294.6	294.6
5°	288.7	287.8	287.8	287.8	287.4	287.4	286.9	286.9
7.5°	280.6	280.1	279.7	279.3	278.8	278.3	278.3	278.3
10°	272.4	271.6	271.6	271.1	270.3	269.8	269.8	269.8
12.5°	263.0	262.6	262.1	262.1	260.3	260.8	260.3	260.3
15°	254.0	253.5	253.5	252.2	251.4	251.4	251.4	250.9
17.5°	244.5	244.1	243.7	242.8	241.9	241.9	241.4	241.9
20°	234.6	234.3	233.3	233.3	232.8	232.5	231.5	232.0
22.5°	224.8	223.8	223.4	223.4	223.0	223.0	222.0	222.0
25°	214.4	213.9	213.5	213.9	213.1	213.1	212.1	212.1
27.5°	203.6	203.1	203.1	203.1	202.7	203.1	202.7	202.7
30°	192.7	192.7	192.4	192.4	192.7	192.4	192.7	193.2
32.5°	181.1	181.1	181.5	181.5	181.9	181.9	181.9	181.9
35°	168.9	169.9	169.9	170.2	170.7	171.2	171.2	171.6
37.5°	157.6	158.1	158.5	159.0	159.9	159.9	159.9	159.9
40°	145.4	145.9	146.9	146.4	148.2	148.7	148.2	148.2
42.5°	132.9	133.8	134.2	135.1	135.6	136.5	136.9	136.9
45°	121.1	121.6	122.5	123.4	123.9	125.2	125.2	125.2
47.5°	109.0	109.9	110.4	111.2	111.7	113.0	113.5	113.0
50°	97.3	98.2	99.1	99.1	100.4	100.9	101.7	102.2
52.5°	86.1	86.4	87.4	87.9	88.7	89.7	90.1	90.5
55°	75.2	75.7	76.6	76.6	77.9	78.4	79.2	79.2
57.5°	65.4	65.7	66.7	66.2	67.2	68.0	68.0	67.5
60°	55.9	55.9	55.9	56.7	57.2	57.7	58.1	58.1
62.5°	46.0	46.8	47.3	47.3	47.8	48.2	48.2	47.8
65°	37.0	37.8	38.3	38.3	38.8	38.8	38.8	39.1
67.5°	27.9	27.9	27.9	28.4	27.9	27.9	27.9	27.9
70°	17.6	17.6	17.6	17.6	17.1	17.6	17.6	18.1
72.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
75°	4.1	4.1	4.1	4.5	4.1	4.1	4.1	4.1
77.5°	1.8	1.3	1.8	1.8	1.3	1.3	1.3	1.3
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)