

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: P593479

Luminaire Tested: **HC805D010-HM80520950-81WWBB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593479
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-HM80520950-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 577.9 lumens
Efficiency: N/A
Efficacy: 96.3 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

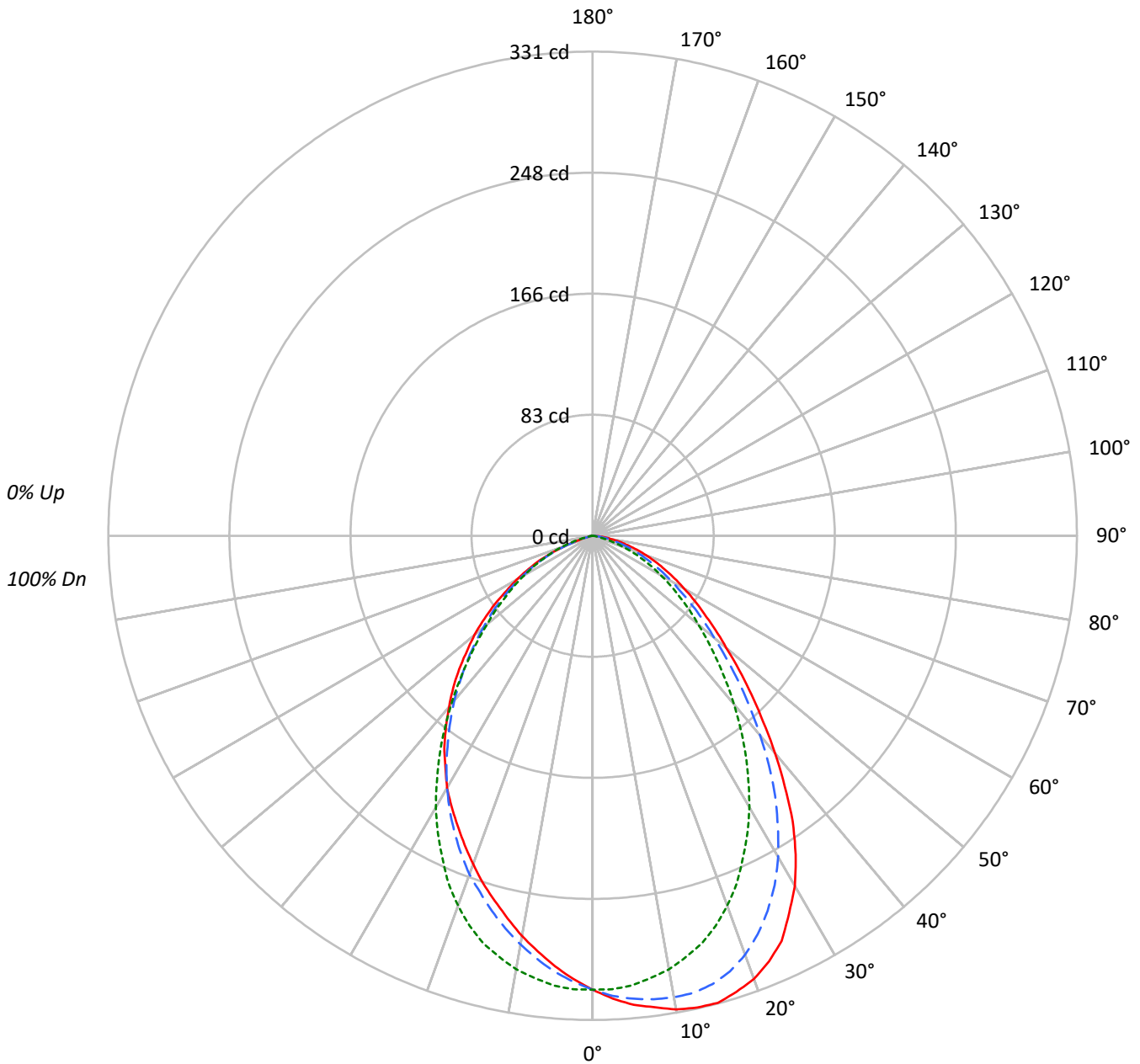
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77				77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67				67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59				59
5	82	70	63	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	47				47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				43
8	66	54	46	41	65	53	46	41	52	46	41	51	45	41	50	44	40	39				39
9	62	50	43	37	61	50	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9569	9569	9569
5°	9964	9549	9144
10°	10295	9425	8698
15°	10554	9210	8246
20°	10580	8827	7836
25°	10398	8268	7434
30°	9842	7631	7082
35°	8971	6863	6652
40°	7805	6046	6143
45°	6694	5237	5621
50°	5718	4519	5052
55°	5011	3887	4387
60°	4459	3312	3688
65°	3955	2707	2940
70°	3507	2011	1677
75°	2919	1060	500
80°	2291	320	89
85°	1663	177	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.2	5.1
10°-20°	81.9	14.2
20°-30°	116.0	20.1
30°-40°	121.3	21.0
40°-50°	101.2	17.5
50°-60°	71.8	12.4
60°-70°	41.3	7.2
70°-80°	13.3	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°	227.2	39.3
0°-40°	348.5	60.3
0°-60°	521.5	90.2
0°-90°	577.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	577.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	310	310	310	310	310	
5°	322	318	308	299	295	31
15°	331	317	288	266	258	93
25°	306	283	243	224	218	139
35°	238	218	182	172	177	148
45°	154	141	120	122	129	119
55°	93	83	72	76	82	84
65°	54	46	37	37	40	54
75°	24	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°	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3
2.5°	316.7	316.2	315.9	316.2	315.9	316.2	315.9	315.9	315.4	314.9	314.9
5°	321.9	321.4	321.4	321.4	320.9	320.4	320.4	320.0	319.1	318.6	317.7
7.5°	325.1	325.6	325.6	325.6	324.6	324.6	323.7	322.8	321.9	320.9	319.6
10°	328.8	328.8	328.3	327.9	326.9	326.5	326.1	325.1	323.7	321.9	320.4
12.5°	330.3	330.3	329.8	328.8	328.3	327.9	327.4	326.1	324.1	321.9	320.0
15°	330.6	329.8	329.3	328.8	327.9	326.5	326.5	324.6	322.4	319.6	317.2
17.5°	326.9	327.4	326.5	325.6	324.1	323.2	321.9	320.4	317.7	314.5	312.2
20°	322.4	321.9	321.4	320.0	318.2	317.7	316.2	314.0	311.7	308.0	304.8
22.5°	314.9	314.5	313.5	312.5	310.7	309.8	308.5	305.6	302.4	298.7	294.9
25°	305.6	304.8	303.3	301.4	300.1	299.1	297.3	294.5	290.8	286.6	282.9
27.5°	290.8	292.2	291.2	288.5	287.0	285.2	284.8	281.1	277.8	273.6	269.4
30°	276.4	276.4	275.1	273.6	271.4	269.9	268.0	265.3	262.0	256.9	253.6
32.5°	258.3	257.8	256.0	255.6	253.6	250.9	250.4	246.7	243.5	239.8	235.6
35°	238.3	237.5	235.6	234.3	233.3	231.9	230.5	227.2	224.0	220.2	217.5
37.5°	215.7	215.7	215.2	212.8	212.0	211.0	209.6	206.4	204.6	200.9	198.0
40°	193.9	193.4	192.0	191.5	190.6	189.2	188.3	186.5	183.6	180.9	178.1
42.5°	172.5	173.0	171.2	171.6	169.7	168.8	168.3	165.5	164.2	161.4	159.1
45°	153.5	153.1	152.1	151.7	150.7	149.7	148.9	147.5	145.2	142.3	141.0
47.5°	135.9	134.5	134.5	134.1	133.6	131.7	131.2	129.9	128.4	125.7	123.8
50°	119.2	119.2	119.2	118.7	117.3	116.8	116.0	114.6	113.1	111.3	108.6
52.5°	105.7	105.7	105.7	105.3	103.4	102.9	102.5	100.7	98.8	97.4	95.5
55°	93.2	93.7	93.2	92.3	90.9	90.9	89.5	88.6	86.8	85.3	83.4
57.5°	82.6	82.6	81.6	81.2	80.2	79.7	78.9	77.9	75.7	74.2	71.9
60°	72.3	71.9	71.9	71.0	70.0	69.1	68.6	67.3	66.3	64.0	62.1
62.5°	63.1	63.1	62.1	62.1	60.3	60.3	59.8	58.4	57.1	54.7	53.7
65°	54.2	54.2	53.7	53.4	51.9	51.5	51.0	49.7	48.2	46.8	45.5
67.5°	46.3	46.3	45.5	45.0	44.0	43.6	42.6	41.8	40.3	38.9	37.6
70°	38.9	38.5	38.1	37.6	36.6	36.1	35.2	34.4	32.9	32.0	30.6
72.5°	31.5	31.5	31.1	30.2	29.7	29.2	28.7	27.8	26.5	25.0	24.1
75°	24.5	24.5	24.5	23.7	22.7	22.3	22.3	21.3	20.3	19.0	18.1
77.5°	19.0	18.6	18.1	18.1	17.1	16.6	16.3	15.8	14.4	13.9	12.9
80°	12.9	13.4	12.9	12.6	12.1	11.6	11.6	10.7	10.2	9.2	8.4
82.5°	8.9	8.4	8.4	7.9	7.9	7.4	7.4	6.5	6.0	5.5	5.1
85°	4.7	4.7	4.2	4.2	4.2	3.7	3.7	3.2	3.2	2.8	2.3
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°	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3
2.5°	314.5	313.5	313.0	313.0	312.5	312.2	311.7	311.2	310.3	310.3	309.3
5°	316.7	315.9	315.4	314.0	313.0	313.0	311.2	310.7	309.3	308.5	307.5
7.5°	318.6	316.7	315.4	314.0	313.0	312.2	310.3	308.5	306.6	304.8	303.8
10°	318.6	316.7	314.5	312.2	311.2	310.3	308.0	305.1	302.8	301.0	298.7
12.5°	317.7	314.9	312.2	310.3	308.5	307.0	304.3	301.4	298.7	294.9	293.1
15°	314.9	311.2	308.5	305.1	303.8	301.4	299.1	294.9	291.7	288.5	286.2
17.5°	309.3	304.8	301.4	298.2	295.9	294.5	290.8	287.0	283.3	279.6	276.9
20°	301.0	296.9	293.1	289.0	287.0	285.2	280.6	276.9	273.2	269.0	266.2
22.5°	290.8	286.6	281.5	278.3	275.4	273.2	269.0	264.8	261.1	257.4	253.6
25°	278.3	274.1	269.4	264.3	262.5	260.2	255.6	251.4	247.2	243.0	239.8
27.5°	264.8	259.3	255.6	249.9	248.1	245.7	240.7	236.0	232.3	229.1	225.4
30°	248.6	244.4	239.3	234.3	232.3	230.1	225.9	221.7	218.0	214.3	210.6
32.5°	230.9	226.8	221.7	218.0	215.2	213.3	209.1	205.4	201.7	198.0	194.8
35°	212.5	207.8	204.1	200.4	198.0	195.7	191.5	188.3	185.5	182.3	179.1
37.5°	193.4	190.2	186.5	182.3	179.9	178.1	174.9	171.2	168.8	166.0	163.7
40°	174.9	171.2	167.9	164.2	162.3	160.9	157.6	154.9	152.6	150.2	148.9
42.5°	155.8	152.6	149.4	147.0	145.7	144.2	142.0	138.6	137.3	134.9	133.6
45°	138.3	135.4	133.1	129.9	128.9	128.0	125.2	122.9	121.5	120.1	119.2
47.5°	121.5	119.7	116.8	115.0	113.6	112.6	110.8	108.9	107.6	106.7	105.7
50°	107.1	104.9	102.9	101.1	100.2	98.8	97.0	96.0	95.0	94.2	94.2
52.5°	93.7	91.3	89.5	88.1	87.1	86.3	84.9	84.4	83.4	83.4	83.1
55°	81.2	79.7	77.9	76.0	75.7	75.2	74.2	73.3	72.8	72.3	72.8
57.5°	70.5	69.1	67.3	65.8	65.4	64.9	64.5	63.6	63.1	63.1	63.1
60°	60.8	59.4	57.9	56.6	56.6	55.7	55.2	54.7	54.2	53.7	53.7
62.5°	51.9	50.5	49.2	48.2	47.8	47.3	46.3	46.0	45.5	45.5	45.0
65°	44.0	42.3	41.8	40.3	39.9	39.4	38.9	38.1	37.6	37.1	36.6
67.5°	36.1	35.2	33.9	32.9	32.4	32.0	31.5	30.6	30.2	29.7	28.7
70°	29.2	28.2	27.4	26.5	26.0	25.5	24.5	23.7	23.2	22.3	20.8
72.5°	22.7	21.8	20.8	20.0	19.5	19.0	18.1	17.1	16.3	15.3	14.4
75°	17.1	16.3	14.8	13.9	13.4	13.4	12.1	11.1	10.2	8.9	7.9
77.5°	12.1	10.7	10.2	9.2	8.9	7.9	6.9	6.0	5.1	4.7	3.7
80°	7.9	6.9	6.0	5.5	5.1	4.7	4.2	3.2	2.3	1.8	1.4
82.5°	4.7	4.2	3.7	3.2	2.8	2.3	1.8	1.8	1.4	1.0	0.5
85°	2.3	1.8	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°	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3
2.5°	308.8	308.5	308.0	307.5	307.5	306.6	306.6	306.1	305.1	304.8	304.8
5°	306.1	304.8	303.8	303.3	302.8	301.4	301.0	300.1	299.1	298.2	297.7
7.5°	301.9	299.6	298.7	298.2	296.9	295.4	294.5	293.1	291.7	290.3	289.9
10°	296.9	294.5	292.2	291.2	289.9	289.0	287.0	285.2	283.8	282.5	281.1
12.5°	290.3	287.5	285.2	284.3	282.9	281.1	278.3	277.3	275.1	274.1	272.2
15°	282.9	279.6	277.3	275.9	274.6	271.7	269.9	268.0	265.7	264.8	263.0
17.5°	273.6	269.9	267.6	266.2	265.3	263.0	260.2	257.8	255.6	254.6	253.2
20°	262.5	260.2	256.9	255.6	254.6	251.8	249.1	248.1	246.2	244.4	243.0
22.5°	249.9	247.7	244.4	243.0	242.5	240.2	238.0	236.5	235.1	233.8	232.3
25°	237.0	234.3	231.4	230.5	229.6	227.7	225.9	224.9	223.5	222.6	221.7
27.5°	223.1	220.2	218.0	216.5	215.7	214.3	213.3	212.5	211.5	210.6	210.1
30°	208.3	205.4	203.6	202.7	201.7	201.3	199.9	199.4	198.9	198.0	198.5
32.5°	193.4	191.0	189.2	187.8	187.8	186.9	186.5	186.5	186.0	186.0	186.0
35°	177.2	175.7	174.4	173.9	173.4	173.0	172.5	173.0	172.5	173.0	173.4
37.5°	162.3	160.9	160.0	159.6	159.1	159.6	159.1	159.1	159.6	160.5	160.9
40°	147.0	146.0	145.2	145.7	145.2	145.2	145.2	146.5	147.0	147.5	147.9
42.5°	132.6	131.7	131.2	131.2	131.7	131.2	132.1	132.6	133.6	134.9	135.9
45°	118.7	118.3	118.3	118.7	118.3	119.2	119.2	120.1	121.5	122.5	123.4
47.5°	105.7	105.7	105.7	106.2	106.2	106.7	107.6	108.1	108.9	109.9	110.8
50°	93.7	94.2	94.6	94.6	94.6	95.5	96.5	97.0	97.4	97.9	99.2
52.5°	83.1	83.4	83.4	83.9	84.4	84.9	85.3	86.3	86.8	87.6	88.1
55°	72.8	72.8	73.7	74.2	74.2	74.2	75.2	75.2	76.0	76.5	77.4
57.5°	63.1	63.6	63.6	64.0	64.0	64.5	64.9	65.4	65.8	66.3	66.8
60°	53.7	53.7	53.7	54.2	54.7	55.2	54.7	55.7	55.7	56.6	57.1
62.5°	45.0	45.5	45.5	45.5	45.5	45.5	45.5	46.0	46.3	46.8	47.3
65°	36.6	36.6	36.6	36.1	36.6	36.1	36.6	37.1	37.1	37.6	38.1
67.5°	28.2	28.2	27.4	27.4	27.8	27.8	27.8	27.8	27.4	28.2	28.2
70°	20.3	20.0	19.5	19.0	19.0	18.6	18.6	18.1	18.1	18.1	18.1
72.5°	13.4	12.6	11.6	11.1	10.7	10.7	9.7	9.2	9.7	9.7	9.7
75°	6.9	6.0	5.5	5.1	4.7	4.7	4.2	4.2	4.2	4.2	4.2
77.5°	2.8	2.3	1.8	1.8	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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3
2.5°	304.3	304.3	303.8	304.3	303.3	303.8	303.3	303.3
5°	297.3	296.4	296.4	296.4	295.9	295.9	295.4	295.4
7.5°	289.0	288.5	288.0	287.5	287.0	286.6	286.6	286.6
10°	280.6	279.6	279.6	279.1	278.3	277.8	277.8	277.8
12.5°	270.9	270.4	269.9	269.9	268.0	268.5	268.0	268.0
15°	261.5	261.1	261.1	259.7	258.8	258.8	258.8	258.3
17.5°	251.8	251.4	250.9	249.9	249.1	249.1	248.6	249.1
20°	241.7	241.2	240.2	240.2	239.8	239.3	238.3	238.8
22.5°	231.4	230.5	230.1	230.1	229.6	229.6	228.6	228.6
25°	220.7	220.2	219.8	220.2	219.4	219.4	218.5	218.5
27.5°	209.6	209.1	209.1	209.1	208.8	209.1	208.8	208.8
30°	198.5	198.5	198.0	198.0	198.5	198.0	198.5	198.9
32.5°	186.5	186.5	186.9	186.9	187.3	187.3	187.3	187.3
35°	173.9	174.9	174.9	175.4	175.7	176.2	176.2	176.7
37.5°	162.3	162.8	163.3	163.7	164.6	164.6	164.6	164.6
40°	149.7	150.2	151.2	150.7	152.6	153.1	152.6	152.6
42.5°	136.8	137.8	138.3	139.1	139.6	140.5	141.0	141.0
45°	124.7	125.2	126.2	127.1	127.5	128.9	128.9	128.9
47.5°	112.3	113.1	113.6	114.6	115.0	116.3	116.8	116.3
50°	100.2	101.1	102.0	102.0	103.4	103.9	104.9	105.3
52.5°	88.6	89.1	90.0	90.5	91.3	92.3	92.8	93.2
55°	77.4	77.9	78.9	78.9	80.2	80.7	81.6	81.6
57.5°	67.3	67.8	68.6	68.2	69.1	70.0	70.0	69.5
60°	57.5	57.5	57.5	58.4	58.9	59.4	59.8	59.8
62.5°	47.3	48.2	48.7	48.7	49.2	49.7	49.7	49.2
65°	38.1	38.9	39.4	39.4	39.9	39.9	39.9	40.3
67.5°	28.7	28.7	28.7	29.2	28.7	28.7	28.7	28.7
70°	18.1	18.1	18.1	18.1	17.6	18.1	18.1	18.6
72.5°	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
75°	4.2	4.2	4.2	4.7	4.2	4.2	4.2	4.2
77.5°	1.8	1.4	1.8	1.8	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)