

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: P593513

Luminaire Tested: **HC807D010-HM80520950-81WWBB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593513
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: HC807D010-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: 762.5 lumens
Efficiency: N/A
Efficacy: 95.3 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

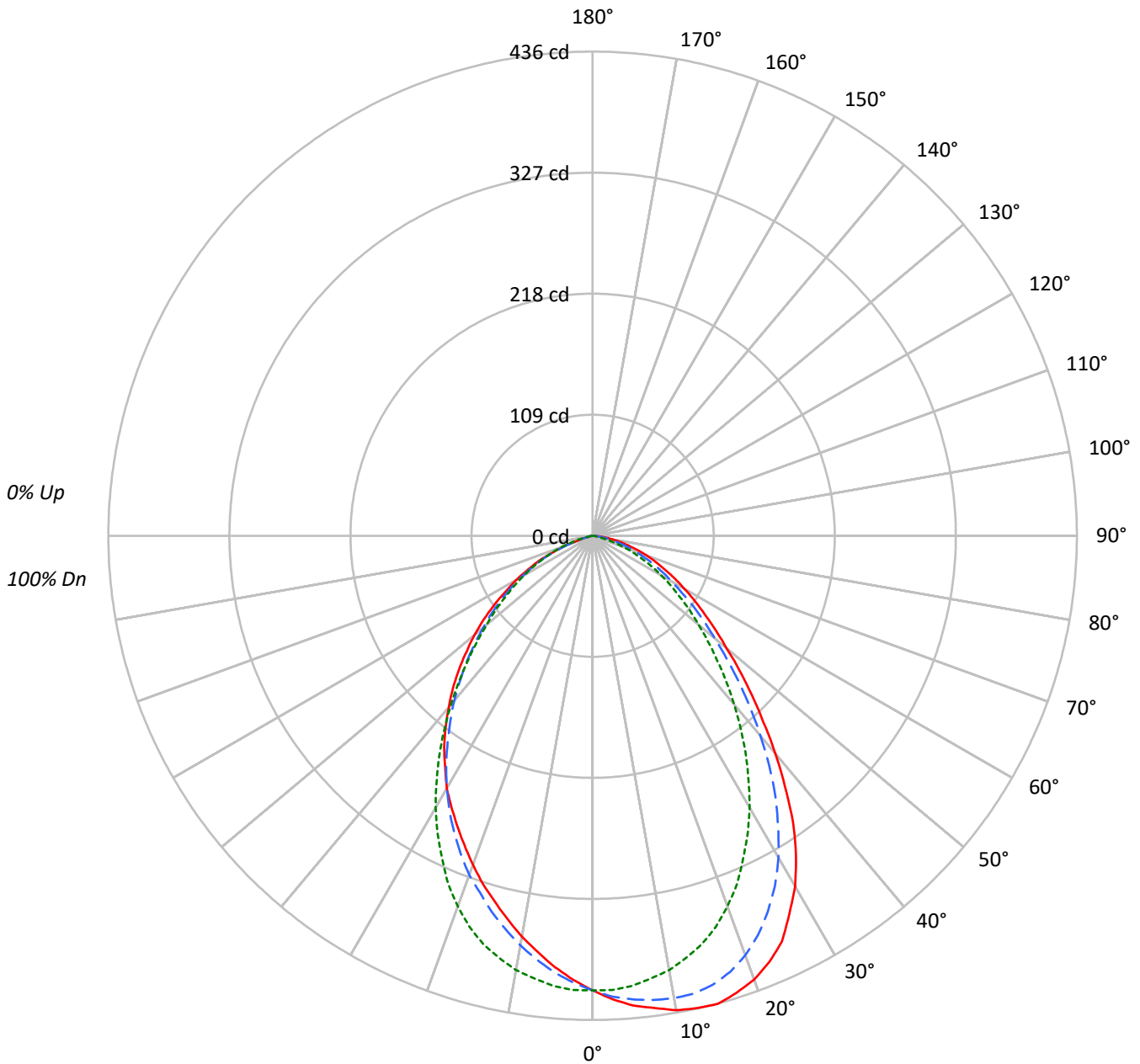
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	12624	12624	12624
5°	13146	12595	12066
10°	13583	12434	11476
15°	13928	12150	10880
20°	13956	11646	10340
25°	13719	10908	9806
30°	12986	10066	9347
35°	11839	9050	8775
40°	10293	7982	8107
45°	8835	6912	7414
50°	7546	5958	6663
55°	6613	5134	5790
60°	5890	4379	4872
65°	5224	3575	3882
70°	4634	2651	2209
75°	3860	1382	655
80°	3037	426	107
85°	2158	212	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	5.1
10°-20°	108.1	14.2
20°-30°	153.0	20.1
30°-40°	160.1	21.0
40°-50°	133.5	17.5
50°-60°	94.7	12.4
60°-70°	54.5	7.2
70°-80°	17.6	2.3
80°-90°	2.4	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°	299.7	39.3
0°-40°	459.8	60.3
0°-60°	688.0	90.2
0°-90°	762.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	762.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	409	409	409	409	409	
5°	425	419	407	395	390	41
15°	436	418	381	351	341	123
25°	403	373	321	295	288	184
35°	314	287	240	228	233	195
45°	203	186	158	160	170	157
55°	123	110	96	100	108	111
65°	72	60	49	49	53	72
75°	32	24	12	6	6	35
85°	6	3	1	0	0	8
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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	417.9	417.3	416.7	417.3	416.7	417.3	416.7	416.7	416.1	415.5	415.5
5°	424.7	424.0	424.0	424.0	423.4	422.8	422.8	422.2	421.0	420.4	419.1
7.5°	428.9	429.6	429.6	429.6	428.3	428.3	427.1	425.9	424.7	423.4	421.6
10°	433.8	433.8	433.2	432.6	431.4	430.8	430.2	428.9	427.1	424.7	422.8
12.5°	435.7	435.7	435.1	433.8	433.2	432.6	432.0	430.2	427.7	424.7	422.2
15°	436.3	435.1	434.4	433.8	432.6	430.8	430.8	428.3	425.3	421.6	418.5
17.5°	431.4	432.0	430.8	429.6	427.7	426.5	424.7	422.8	419.1	414.9	411.8
20°	425.3	424.7	424.0	422.2	419.8	419.1	417.3	414.3	411.2	406.3	402.0
22.5°	415.5	414.9	413.6	412.4	410.0	408.7	406.9	403.2	398.9	394.1	389.2
25°	403.2	402.0	400.2	397.7	395.9	394.7	392.2	388.5	383.6	378.1	373.2
27.5°	383.6	385.5	384.3	380.6	378.8	376.3	375.7	370.8	366.5	361.0	355.5
30°	364.7	364.7	362.8	361.0	357.9	356.1	353.7	350.0	345.7	339.0	334.7
32.5°	340.8	340.2	337.7	337.1	334.7	331.0	330.4	325.5	321.2	316.3	310.8
35°	314.5	313.3	310.8	309.0	307.8	305.9	304.1	299.8	295.5	290.6	286.9
37.5°	284.5	284.5	283.9	280.8	279.6	278.4	276.5	272.3	269.8	264.9	261.2
40°	255.7	255.1	253.3	252.7	251.4	249.6	248.4	245.9	242.3	238.6	234.9
42.5°	227.6	228.2	225.7	226.5	223.9	222.7	222.2	218.4	216.7	212.9	209.8
45°	202.6	202.0	200.6	200.0	198.8	197.7	196.5	194.5	191.6	187.9	186.1
47.5°	179.2	177.5	177.5	176.9	176.3	173.8	173.2	171.4	169.5	165.9	163.4
50°	157.3	157.3	157.3	156.7	154.8	154.2	153.0	151.2	149.3	146.9	143.2
52.5°	139.5	139.5	139.5	138.9	136.5	135.9	135.3	132.8	130.4	128.5	126.1
55°	123.0	123.6	123.0	121.8	120.0	120.0	118.1	116.9	114.5	112.6	110.2
57.5°	108.9	108.9	107.7	107.1	105.9	105.3	104.0	102.8	99.8	97.9	94.9
60°	95.5	94.9	94.9	93.6	92.4	91.2	90.6	88.7	87.5	84.5	82.0
62.5°	83.2	83.2	82.0	82.0	79.6	79.6	79.0	77.1	75.3	72.2	71.0
65°	71.6	71.6	71.0	70.4	68.5	67.9	67.3	65.5	63.7	61.8	60.0
67.5°	61.2	61.2	60.0	59.4	58.1	57.5	56.3	55.1	53.2	51.4	49.6
70°	51.4	50.8	50.2	49.6	48.4	47.7	46.5	45.3	43.5	42.2	40.4
72.5°	41.6	41.6	41.0	39.8	39.2	38.6	37.9	36.7	34.9	33.1	31.8
75°	32.4	32.4	32.4	31.2	30.0	29.4	29.4	28.2	26.9	25.1	23.9
77.5°	25.1	24.5	23.9	23.9	22.6	22.0	21.4	20.8	19.0	18.4	17.1
80°	17.1	17.7	17.1	16.5	15.9	15.3	15.3	14.1	13.5	12.2	11.0
82.5°	11.6	11.0	11.0	10.4	10.4	9.8	9.8	8.6	8.0	7.3	6.7
85°	6.1	6.1	5.5	5.5	5.5	4.9	4.9	4.3	4.3	3.7	3.1
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2
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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	414.9	413.6	413.0	413.0	412.4	411.8	411.2	410.6	409.4	409.4	408.1
5°	417.9	416.7	416.1	414.3	413.0	413.0	410.6	410.0	408.1	406.9	405.7
7.5°	420.4	417.9	416.1	414.3	413.0	411.8	409.4	406.9	404.5	402.0	400.8
10°	420.4	417.9	414.9	411.8	410.6	409.4	406.3	402.6	399.6	397.1	394.1
12.5°	419.1	415.5	411.8	409.4	406.9	405.1	401.4	397.7	394.1	389.2	386.7
15°	415.5	410.6	406.9	402.6	400.8	397.7	394.7	389.2	384.9	380.6	377.5
17.5°	408.1	402.0	397.7	393.4	390.4	388.5	383.6	378.8	373.9	369.0	365.3
20°	397.1	391.6	386.7	381.2	378.8	376.3	370.2	365.3	360.4	354.9	351.2
22.5°	383.6	378.1	371.4	367.1	363.5	360.4	354.9	349.4	344.5	339.6	334.7
25°	367.1	361.6	355.5	348.8	346.3	343.3	337.1	331.6	326.1	320.6	316.3
27.5°	349.4	342.0	337.1	329.8	327.3	324.3	317.5	311.4	306.5	302.2	297.4
30°	328.0	322.4	315.7	309.0	306.5	303.5	298.0	292.5	287.6	282.7	277.8
32.5°	304.7	299.2	292.5	287.6	283.9	281.4	275.9	271.0	266.1	261.2	257.0
35°	280.2	274.1	269.2	264.3	261.2	258.2	252.7	248.4	244.7	240.4	236.1
37.5°	255.1	250.8	245.9	240.4	237.4	234.9	230.6	225.7	222.7	219.0	215.9
40°	230.6	225.7	221.6	216.7	214.1	212.4	208.0	204.3	201.4	198.3	196.5
42.5°	205.5	201.4	197.1	193.9	192.2	190.2	187.3	183.0	181.2	178.1	176.3
45°	182.4	178.7	175.7	171.4	170.0	168.9	165.3	162.2	160.4	158.5	157.3
47.5°	160.4	157.9	154.2	151.8	149.9	148.7	146.3	143.8	142.0	140.8	139.5
50°	141.4	138.3	135.9	133.4	132.2	130.4	127.9	126.7	125.5	124.2	124.2
52.5°	123.6	120.6	118.1	116.3	115.1	113.8	112.0	111.4	110.2	110.2	109.6
55°	107.1	105.3	102.8	100.4	99.8	99.2	97.9	96.7	96.1	95.5	96.1
57.5°	93.0	91.2	88.7	86.9	86.3	85.7	85.1	83.8	83.2	83.2	83.2
60°	80.2	78.3	76.5	74.7	74.7	73.4	72.8	72.2	71.6	71.0	71.0
62.5°	68.5	66.7	64.9	63.7	63.0	62.4	61.2	60.6	60.0	60.0	59.4
65°	58.1	55.7	55.1	53.2	52.6	52.0	51.4	50.2	49.6	49.0	48.4
67.5°	47.7	46.5	44.7	43.5	42.8	42.2	41.6	40.4	39.8	39.2	37.9
70°	38.6	37.3	36.1	34.9	34.3	33.7	32.4	31.2	30.6	29.4	27.5
72.5°	30.0	28.8	27.5	26.3	25.7	25.1	23.9	22.6	21.4	20.2	19.0
75°	22.6	21.4	19.6	18.4	17.7	17.7	15.9	14.7	13.5	11.6	10.4
77.5°	15.9	14.1	13.5	12.2	11.6	10.4	9.2	8.0	6.7	6.1	4.9
80°	10.4	9.2	8.0	7.3	6.7	6.1	5.5	4.3	3.1	2.4	1.8
82.5°	6.1	5.5	4.9	4.3	3.7	3.1	2.4	2.4	1.8	1.2	0.6
85°	3.1	2.4	1.8	1.8	1.2	1.2	1.2	0.6	0.6	0.6	0.6
87.5°	1.2	0.6	0.6	0.6	0.6	0.6	0.6	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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	407.5	406.9	406.3	405.7	405.7	404.5	404.5	403.8	402.6	402.0	402.0
5°	403.8	402.0	400.8	400.2	399.6	397.7	397.1	395.9	394.7	393.4	392.8
7.5°	398.3	395.3	394.1	393.4	391.6	389.8	388.5	386.7	384.9	383.0	382.4
10°	391.6	388.5	385.5	384.3	382.4	381.2	378.8	376.3	374.5	372.6	370.8
12.5°	383.0	379.4	376.3	375.1	373.2	370.8	367.1	365.9	362.8	361.6	359.2
15°	373.2	369.0	365.9	364.1	362.2	358.6	356.1	353.7	350.6	349.4	346.9
17.5°	361.0	356.1	353.0	351.2	350.0	346.9	343.3	340.2	337.1	335.9	334.1
20°	346.3	343.3	339.0	337.1	335.9	332.2	328.6	327.3	324.9	322.4	320.6
22.5°	329.8	326.7	322.4	320.6	320.0	316.9	313.9	312.0	310.2	308.4	306.5
25°	312.7	309.0	305.3	304.1	302.9	300.4	298.0	296.7	294.9	293.7	292.5
27.5°	294.3	290.6	287.6	285.7	284.5	282.7	281.4	280.2	279.0	277.8	277.2
30°	274.7	271.0	268.6	267.4	266.1	265.5	263.7	263.1	262.5	261.2	261.9
32.5°	255.1	252.1	249.6	247.8	247.8	246.6	245.9	245.9	245.3	245.3	245.3
35°	233.7	231.9	230.0	229.4	228.8	228.2	227.6	228.2	227.6	228.2	228.8
37.5°	214.1	212.4	211.2	210.4	209.8	210.4	209.8	209.8	210.4	211.8	212.4
40°	193.9	192.8	191.6	192.2	191.6	191.6	191.6	193.4	193.9	194.5	195.1
42.5°	174.9	173.8	173.2	173.2	173.8	173.2	174.4	174.9	176.3	178.1	179.2
45°	156.7	156.1	156.1	156.7	156.1	157.3	157.3	158.5	160.4	161.6	162.8
47.5°	139.5	139.5	139.5	140.2	140.2	140.8	142.0	142.6	143.8	145.1	146.3
50°	123.6	124.2	124.9	124.9	124.9	126.1	127.3	127.9	128.5	129.1	131.0
52.5°	109.6	110.2	110.2	110.8	111.4	112.0	112.6	113.8	114.5	115.7	116.3
55°	96.1	96.1	97.3	97.9	97.9	97.9	99.2	99.2	100.4	101.0	102.2
57.5°	83.2	83.8	83.8	84.5	84.5	85.1	85.7	86.3	86.9	87.5	88.1
60°	71.0	71.0	71.0	71.6	72.2	72.8	72.2	73.4	73.4	74.7	75.3
62.5°	59.4	60.0	60.0	60.0	60.0	60.0	60.0	60.6	61.2	61.8	62.4
65°	48.4	48.4	48.4	47.7	48.4	47.7	48.4	49.0	49.0	49.6	50.2
67.5°	37.3	37.3	36.1	36.1	36.7	36.7	36.7	36.7	36.1	37.3	37.3
70°	26.9	26.3	25.7	25.1	25.1	24.5	24.5	23.9	23.9	23.9	23.9
72.5°	17.7	16.5	15.3	14.7	14.1	14.1	12.9	12.2	12.9	12.9	12.9
75°	9.2	8.0	7.3	6.7	6.1	6.1	5.5	5.5	5.5	5.5	5.5
77.5°	3.7	3.1	2.4	2.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8
80°	1.2	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.0	0.0	0.6	0.0	0.6	0.6	0.6	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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	401.4	401.4	400.8	401.4	400.2	400.8	400.2	400.2
5°	392.2	391.0	391.0	391.0	390.4	390.4	389.8	389.8
7.5°	381.2	380.6	380.0	379.4	378.8	378.1	378.1	378.1
10°	370.2	369.0	369.0	368.3	367.1	366.5	366.5	366.5
12.5°	357.3	356.7	356.1	356.1	353.7	354.3	353.7	353.7
15°	345.1	344.5	344.5	342.6	341.4	341.4	341.4	340.8
17.5°	332.2	331.6	331.0	329.8	328.6	328.6	328.0	328.6
20°	318.8	318.2	316.9	316.9	316.3	315.7	314.5	315.1
22.5°	305.3	304.1	303.5	303.5	302.9	302.9	301.6	301.6
25°	291.2	290.6	290.0	290.6	289.4	289.4	288.2	288.2
27.5°	276.5	275.9	275.9	275.9	275.3	275.9	275.3	275.3
30°	261.9	261.9	261.2	261.2	261.9	261.2	261.9	262.5
32.5°	245.9	245.9	246.6	246.6	247.2	247.2	247.2	247.2
35°	229.4	230.6	230.6	231.4	231.9	232.5	232.5	233.1
37.5°	214.1	214.7	215.3	215.9	217.3	217.3	217.3	217.3
40°	197.7	198.3	199.4	198.8	201.4	202.0	201.4	201.4
42.5°	180.6	181.8	182.4	183.6	184.1	185.3	186.1	186.1
45°	164.6	165.3	166.5	167.7	168.3	170.0	170.0	170.0
47.5°	148.1	149.3	149.9	151.2	151.8	153.6	154.2	153.6
50°	132.2	133.4	134.6	134.6	136.5	137.1	138.3	138.9
52.5°	116.9	117.5	118.7	119.3	120.6	121.8	122.4	123.0
55°	102.2	102.8	104.0	104.0	105.9	106.5	107.7	107.7
57.5°	88.7	89.4	90.6	90.0	91.2	92.4	92.4	91.8
60°	75.9	75.9	75.9	77.1	77.7	78.3	79.0	79.0
62.5°	62.4	63.7	64.3	64.3	64.9	65.5	65.5	64.9
65°	50.2	51.4	52.0	52.0	52.6	52.6	52.6	53.2
67.5°	37.9	37.9	37.9	38.6	37.9	37.9	37.9	37.9
70°	23.9	23.9	23.9	23.9	23.3	23.9	23.9	24.5
72.5°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
75°	5.5	5.5	5.5	6.1	5.5	5.5	5.5	5.5
77.5°	2.4	1.8	2.4	2.4	1.8	1.8	1.8	1.8
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.0	0.6	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)