

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: P583659

Luminaire Tested: **HC807D010-HM80520930-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583659
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: HC807D010-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: 765.4 lumens
Efficiency: N/A
Efficacy: 95.7 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

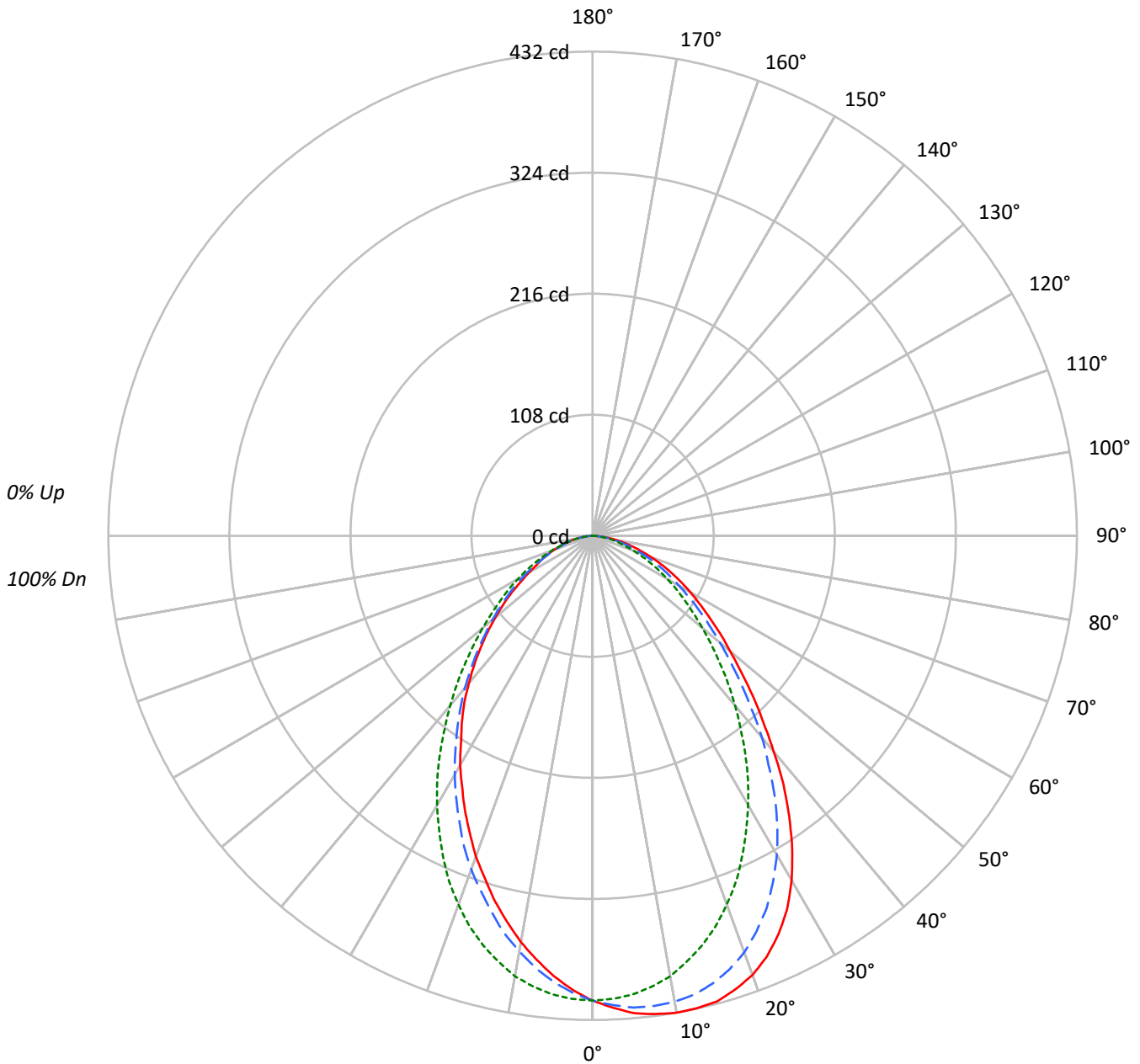
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12788	12788	12788
5°	13239	12713	12211
10°	13530	12493	11526
15°	13727	12071	10762
20°	13681	11485	9989
25°	13344	10741	9173
30°	12640	9877	8417
35°	11504	8937	7649
40°	10104	7950	6908
45°	8809	6995	6158
50°	7666	6126	5421
55°	6833	5382	4720
60°	6210	4718	4021
65°	5582	4108	3656
70°	4968	3498	3300
75°	4361	2943	2824
80°	3694	2397	2504
85°	2795	1769	1981



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	5.1
10°-20°	107.0	14.0
20°-30°	148.6	19.4
30°-40°	153.6	20.1
40°-50°	128.6	16.8
50°-60°	93.4	12.2
60°-70°	58.9	7.7
70°-80°	29.2	3.8
80°-90°	7.3	0.9
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°	294.4	38.5
0°-40°	448.0	58.5
0°-60°	670.0	87.5
0°-90°	765.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	765.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	415	415	415	415	415	
5°	428	423	411	400	394	41
15°	430	414	378	348	337	121
25°	392	367	316	281	270	180
35°	306	283	237	210	203	190
45°	202	187	160	145	141	156
55°	127	116	100	92	88	115
65°	76	67	56	50	50	76
75°	37	30	25	24	24	39
85°	8	6	5	6	6	10
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°	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7
2.5°	421.5	421.5	422.1	421.5	421.5	421.5	420.9	420.9	420.3	420.3	419.2
5°	427.7	426.5	427.7	426.5	426.5	426.5	426.0	424.8	424.2	423.1	422.6
7.5°	430.4	430.0	430.0	429.4	429.4	428.8	428.2	427.7	425.4	424.8	423.1
10°	432.1	431.6	431.6	431.0	430.0	430.0	428.8	428.2	425.4	424.2	422.1
12.5°	431.6	431.6	431.6	431.0	429.4	428.8	427.7	426.0	423.7	421.5	419.2
15°	430.0	430.0	428.8	428.2	426.5	425.4	424.8	422.1	419.8	416.9	413.6
17.5°	424.2	424.2	423.7	422.6	420.9	419.8	418.6	415.9	413.6	409.0	405.7
20°	416.9	416.5	415.9	414.2	412.5	411.9	410.2	406.3	403.4	400.1	395.5
22.5°	406.3	405.7	405.1	404.0	401.2	400.1	399.0	396.1	391.1	387.7	382.0
25°	392.2	392.2	391.1	389.3	386.6	385.5	383.7	381.0	376.4	371.4	366.9
27.5°	375.8	375.3	373.7	372.5	370.2	368.5	365.8	362.3	357.9	354.0	348.3
30°	355.0	355.0	354.0	352.3	349.4	348.3	346.1	342.1	337.6	332.6	328.6
32.5°	331.4	331.4	329.7	328.6	327.0	324.1	323.6	319.1	315.1	311.2	306.6
35°	305.6	306.2	305.0	302.7	299.9	299.9	298.8	294.8	290.4	286.4	283.1
37.5°	279.6	278.0	277.4	276.3	274.6	272.3	271.3	269.6	265.6	262.8	257.8
40°	251.0	251.5	250.4	249.3	248.7	247.0	246.4	243.7	240.8	237.4	235.2
42.5°	225.1	225.1	225.1	223.9	222.9	221.2	220.6	218.9	215.5	213.3	209.8
45°	202.0	200.3	200.3	199.8	199.2	198.0	196.3	195.3	193.0	191.3	187.4
47.5°	179.5	180.1	179.5	178.9	177.2	176.7	176.1	173.9	171.6	169.9	167.2
50°	159.8	161.0	159.8	159.8	158.7	158.1	157.0	155.4	153.7	150.8	147.9
52.5°	143.5	143.5	142.9	142.3	140.7	139.6	139.0	138.4	135.6	133.4	131.1
55°	127.1	127.7	127.7	126.1	125.5	124.4	123.8	122.1	120.9	117.6	115.9
57.5°	113.0	112.6	113.0	112.0	110.9	109.7	109.2	108.0	106.4	104.1	101.8
60°	100.7	99.5	99.5	99.1	97.9	97.4	96.2	94.5	92.9	90.6	88.9
62.5°	88.3	87.8	87.2	86.6	85.6	85.0	84.4	82.7	81.0	79.3	77.7
65°	76.5	76.5	76.0	74.8	74.3	73.7	73.1	72.1	69.8	68.6	66.9
67.5°	65.8	65.2	65.2	64.2	63.0	62.5	62.5	61.3	59.6	58.0	56.9
70°	55.1	55.7	55.1	54.6	53.4	53.4	52.3	51.7	49.5	49.0	47.3
72.5°	45.5	45.5	45.1	45.1	43.9	43.4	43.4	42.2	41.1	39.9	38.8
75°	36.6	36.6	36.6	36.0	35.5	34.3	34.3	33.8	32.6	31.5	30.4
77.5°	28.7	28.1	28.1	27.6	27.0	26.4	26.4	25.9	24.7	24.1	23.1
80°	20.8	20.3	20.3	20.3	19.1	19.7	19.1	18.5	18.0	17.4	16.8
82.5°	13.5	14.1	14.1	13.5	12.9	12.9	12.9	12.4	12.4	11.8	11.2
85°	7.9	7.9	7.9	7.9	7.3	7.3	7.3	6.8	6.8	6.8	6.2
87.5°	3.3	3.3	3.3	3.3	3.3	3.3	2.9	2.9	2.9	2.9	2.9
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°	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7
2.5°	419.2	418.1	417.5	416.9	416.9	416.5	415.9	414.7	414.7	413.6	413.0
5°	421.5	419.8	418.6	417.5	416.9	415.9	414.7	413.0	412.5	410.7	409.0
7.5°	422.1	419.2	418.1	415.9	414.7	413.6	411.3	409.6	407.4	405.7	403.4
10°	419.8	417.5	414.7	411.9	411.3	409.6	406.3	404.0	401.2	399.0	395.5
12.5°	416.5	413.0	410.2	406.8	405.1	403.4	400.1	396.7	392.8	388.9	385.5
15°	410.7	406.8	402.8	399.0	396.7	395.1	391.1	387.2	383.2	378.1	374.8
17.5°	402.4	397.8	393.9	388.9	386.6	384.9	379.8	375.3	370.2	365.2	361.8
20°	391.6	386.0	381.6	375.8	374.2	371.4	366.3	361.2	355.6	350.0	346.1
22.5°	377.6	372.0	366.9	361.2	358.5	355.6	350.6	344.4	338.8	334.2	330.3
25°	361.2	356.2	350.0	344.9	341.5	338.2	332.6	327.5	322.4	315.7	311.8
27.5°	343.2	337.1	332.6	325.8	322.4	320.1	314.0	307.2	302.7	296.6	292.1
30°	323.0	317.4	312.3	305.6	302.2	299.9	294.3	288.1	283.6	277.4	272.9
32.5°	301.6	295.4	289.2	284.8	280.8	278.6	272.3	268.4	262.8	257.8	252.6
35°	278.6	272.3	267.8	261.7	259.4	257.2	252.1	247.0	242.0	237.4	233.5
37.5°	253.8	249.3	244.3	239.7	238.0	235.8	229.6	225.1	221.2	216.7	213.3
40°	229.6	225.6	222.3	217.7	215.0	213.3	208.8	204.8	200.3	197.5	194.2
42.5°	207.7	203.2	199.8	196.3	193.6	191.9	188.0	185.1	181.8	178.9	174.9
45°	184.5	182.4	178.4	175.5	173.9	171.6	168.9	165.4	162.6	160.4	157.5
47.5°	164.3	162.0	159.3	155.8	154.8	153.1	150.2	147.9	145.8	143.5	140.7
50°	145.8	142.9	140.7	138.4	137.3	135.6	132.8	131.7	130.0	127.7	126.1
52.5°	128.8	126.6	124.4	121.5	120.9	119.9	118.2	115.9	114.2	113.0	112.0
55°	113.6	111.4	109.7	107.4	107.0	105.8	103.5	102.4	101.3	100.1	99.1
57.5°	100.1	97.9	95.6	94.5	93.4	92.3	91.8	90.0	88.9	88.3	87.2
60°	87.8	85.6	83.9	82.1	81.6	81.0	79.9	78.8	77.7	76.5	76.0
62.5°	76.0	73.7	72.5	71.5	70.4	70.4	69.2	68.1	66.9	66.4	65.2
65°	65.2	64.2	62.5	60.8	60.2	60.2	58.6	58.0	57.4	56.3	55.1
67.5°	55.1	54.0	52.3	51.7	51.3	50.7	50.1	49.0	47.8	47.3	46.1
70°	46.1	45.1	43.9	43.4	42.8	42.2	41.1	40.5	39.4	38.8	38.2
72.5°	37.2	36.6	35.5	34.9	34.3	33.8	33.2	32.6	31.5	31.0	30.4
75°	29.9	29.3	28.1	27.6	27.0	27.0	26.4	25.3	24.7	24.7	24.1
77.5°	22.5	22.0	21.4	20.8	20.3	20.3	19.7	19.1	18.5	18.5	18.0
80°	16.4	15.8	15.2	15.2	15.2	14.6	14.1	14.1	13.5	13.5	12.9
82.5°	10.6	10.6	10.2	10.2	10.2	9.6	9.6	9.0	9.0	9.0	9.0
85°	6.2	6.2	6.2	5.6	5.6	5.6	5.6	5.6	5.6	5.0	5.6
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.3	2.3	2.3
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°	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7
2.5°	412.5	411.9	410.7	410.7	409.6	409.6	409.0	408.6	408.0	407.4	406.8
5°	408.6	406.3	405.1	404.6	403.4	402.8	401.2	400.1	399.5	398.4	397.2
7.5°	401.2	399.0	396.7	396.1	395.5	393.3	391.6	389.9	388.9	387.7	386.6
10°	392.8	390.5	387.7	386.6	385.5	382.6	380.4	378.7	376.4	374.2	373.7
12.5°	382.6	379.3	375.8	374.8	373.1	370.2	368.1	365.2	363.5	360.7	360.2
15°	370.8	366.9	364.1	361.2	360.2	357.3	353.4	351.1	347.7	346.7	343.8
17.5°	356.7	352.8	348.8	347.7	346.1	342.1	338.2	335.3	332.0	330.3	328.6
20°	342.1	337.1	333.2	332.0	329.7	326.4	322.4	319.7	316.8	313.4	311.8
22.5°	325.3	319.7	316.2	313.4	312.9	308.9	304.4	302.2	299.9	297.1	294.8
25°	306.6	301.6	297.7	295.4	294.3	290.9	287.5	284.8	281.3	279.6	276.9
27.5°	287.5	284.2	279.2	276.9	275.2	272.3	268.4	266.7	263.4	261.1	259.4
30°	269.0	263.9	261.1	258.2	256.6	253.8	250.4	248.7	245.9	243.7	242.0
32.5°	248.7	245.3	241.4	240.3	238.0	235.2	232.9	230.2	227.9	225.6	225.1
35°	230.2	225.6	221.7	220.6	218.9	216.1	215.0	213.3	210.4	209.8	207.7
37.5°	209.8	207.7	203.2	201.5	200.9	198.6	196.3	195.3	193.6	191.9	191.3
40°	190.7	188.0	185.7	184.0	182.8	181.2	178.9	178.4	177.2	174.9	174.5
42.5°	172.8	169.9	167.7	167.2	165.4	163.7	162.6	161.0	160.4	159.8	158.7
45°	155.4	153.7	151.4	150.8	150.2	147.9	146.9	145.8	144.6	144.0	142.9
47.5°	139.6	137.9	136.2	135.6	134.4	134.0	132.3	131.7	130.0	129.4	128.8
50°	124.4	123.2	122.1	121.5	120.5	119.9	118.8	117.6	116.5	115.9	115.3
52.5°	110.9	109.7	108.6	108.0	107.4	106.4	105.3	104.1	103.5	103.0	102.4
55°	97.9	96.8	96.2	95.6	95.1	94.5	92.9	92.3	91.8	91.2	90.0
57.5°	86.0	85.0	83.9	83.9	83.3	82.7	81.6	80.4	80.4	79.3	78.3
60°	75.4	74.3	73.1	72.5	72.1	70.9	70.4	69.8	69.2	68.6	67.5
62.5°	64.2	63.6	62.5	62.5	61.3	60.8	60.2	59.6	59.0	58.0	57.4
65°	54.6	54.0	52.9	52.3	52.3	51.7	50.7	50.1	49.5	49.5	49.0
67.5°	45.5	45.1	43.9	43.4	43.4	42.8	42.2	42.2	41.6	41.1	41.6
70°	37.6	36.6	36.6	36.0	36.0	35.5	34.9	34.9	34.9	35.5	35.5
72.5°	29.9	29.3	28.7	28.7	28.7	28.7	28.1	28.1	28.7	29.3	29.3
75°	23.7	23.1	23.1	23.1	22.5	22.5	23.1	23.1	23.7	23.7	23.7
77.5°	17.4	17.4	17.4	17.4	17.4	17.4	18.0	18.0	18.5	18.5	18.5
80°	12.9	12.9	12.9	12.9	12.9	13.5	13.5	13.5	13.5	13.5	14.1
82.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.6	9.6	9.6	9.6
85°	5.0	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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°	414.7	414.7	414.7	414.7	414.7	414.7	414.7	414.7
2.5°	406.3	406.3	406.3	406.8	405.7	405.7	405.7	405.7
5°	396.7	396.1	395.5	396.1	395.1	395.1	394.5	394.5
7.5°	384.9	384.3	383.7	383.7	382.6	382.6	382.0	381.6
10°	372.0	370.8	371.4	370.2	369.7	369.1	368.5	368.1
12.5°	357.9	356.7	356.2	355.0	354.0	353.4	354.0	352.8
15°	342.7	341.1	340.5	339.3	338.2	337.6	337.6	337.1
17.5°	325.8	324.7	324.1	323.0	322.4	321.3	320.7	320.1
20°	310.1	307.2	307.8	306.6	306.2	303.9	303.9	304.4
22.5°	292.7	290.9	289.8	288.7	288.1	286.9	286.9	286.4
25°	275.2	273.4	272.9	271.7	271.3	270.1	269.6	269.6
27.5°	258.2	256.1	256.1	254.9	253.8	253.2	252.6	252.1
30°	240.3	238.6	238.0	238.0	237.4	237.4	235.8	236.4
32.5°	223.3	222.3	221.7	220.6	220.6	220.0	220.0	218.3
35°	206.5	204.8	205.4	204.2	203.7	203.2	203.7	203.2
37.5°	190.2	189.0	189.0	188.0	188.0	187.4	186.8	188.0
40°	173.9	173.3	172.8	172.2	172.8	172.2	171.0	171.6
42.5°	157.5	157.5	157.0	157.0	156.4	156.4	156.4	156.4
45°	142.9	142.3	142.3	141.8	141.8	141.8	141.8	141.2
47.5°	128.3	127.7	127.7	127.7	127.1	127.1	126.6	127.1
50°	114.2	114.2	113.6	113.6	114.2	113.6	113.0	113.0
52.5°	101.3	101.3	100.7	100.7	100.1	99.5	100.1	100.1
55°	89.5	88.9	88.3	88.3	87.8	87.2	87.2	87.8
57.5°	78.3	77.7	77.1	77.1	76.0	75.4	75.4	75.4
60°	67.5	66.4	66.4	65.8	65.8	65.2	65.2	65.2
62.5°	57.4	56.9	56.9	56.9	56.9	56.3	56.3	56.3
65°	49.0	49.0	49.0	49.5	49.5	50.1	50.1	50.1
67.5°	42.2	42.8	42.8	42.8	43.4	43.4	43.4	42.8
70°	36.0	36.0	36.0	36.6	36.6	36.6	36.6	36.6
72.5°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9
75°	23.7	24.1	24.1	24.1	23.7	24.1	24.1	23.7
77.5°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
80°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
82.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
85°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)