

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: P583660

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583660
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520930-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 796.9 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

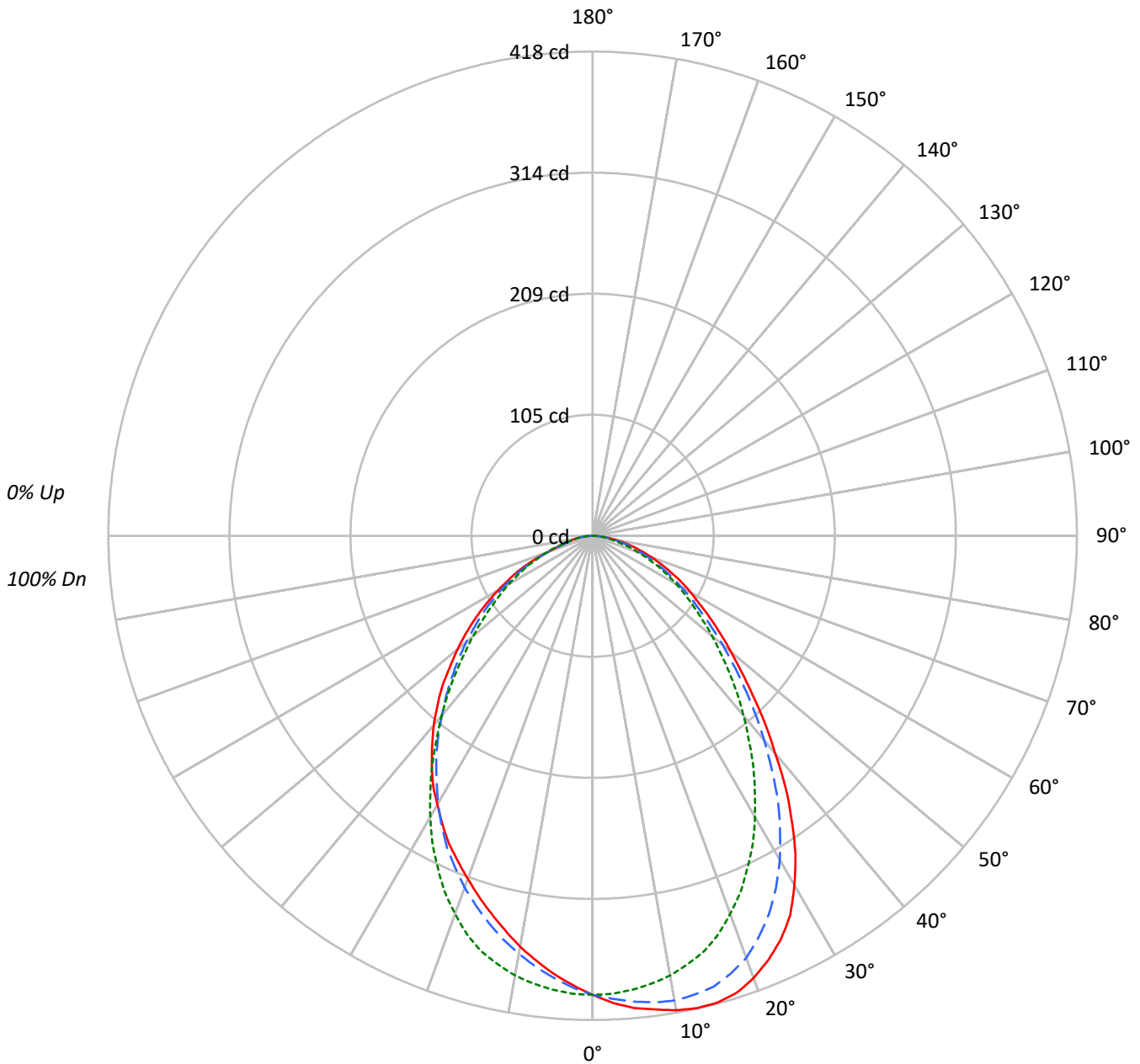
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	91	89	87																			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57																			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50																			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12220	12220	12220
5°	12666	12177	11759
10°	13023	12071	11279
15°	13316	11857	10781
20°	13333	11397	10340
25°	13079	10762	9979
30°	12402	9977	9539
35°	11274	9087	9110
40°	9858	8155	8586
45°	8543	7265	7998
50°	7479	6457	7292
55°	6656	5720	6597
60°	6007	5137	5797
65°	5421	4517	5049
70°	4869	3805	3760
75°	4289	3014	2824
80°	3605	2504	2699
85°	2795	2194	2406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	4.7
10°-20°	105.3	13.2
20°-30°	150.5	18.9
30°-40°	159.9	20.1
40°-50°	137.6	17.3
50°-60°	102.9	12.9
60°-70°	65.6	8.2
70°-80°	29.9	3.7
80°-90°	7.9	1.0
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°	293.1	36.8
0°-40°	453.0	56.8
0°-60°	693.5	87.0
0°-90°	796.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	796.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	396	396	396	396	396	
5°	409	404	393	383	380	39
15°	417	403	371	346	338	117
25°	384	360	316	297	293	176
35°	300	279	241	235	242	186
45°	196	185	167	171	183	152
55°	124	114	106	115	123	111
65°	74	66	62	65	69	74
75°	36	31	25	23	24	38
85°	8	7	6	7	7	9
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°	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3
2.5°	403.6	402.4	403.0	402.4	403.0	403.0	401.9	401.9	401.9	401.9	400.2
5°	409.2	408.6	408.6	408.0	407.5	408.0	407.5	406.9	405.8	405.2	403.6
7.5°	412.5	412.5	412.5	412.5	411.9	411.4	410.8	409.8	408.6	407.5	406.3
10°	415.9	416.5	415.9	415.4	414.8	413.7	413.1	411.9	410.2	408.6	407.5
12.5°	417.7	417.7	417.1	417.1	415.9	415.4	413.7	411.9	410.2	408.6	405.8
15°	417.1	417.1	416.5	415.9	414.2	413.7	412.5	410.8	408.0	405.8	403.0
17.5°	413.7	413.1	411.9	411.9	409.8	409.2	408.0	405.8	403.0	399.6	396.3
20°	406.3	406.3	405.8	405.2	403.0	401.3	400.2	397.3	395.1	391.1	387.8
22.5°	396.3	397.3	396.3	395.1	392.3	391.7	390.0	386.7	383.2	378.8	374.9
25°	384.4	383.8	383.2	382.2	379.9	378.8	376.5	373.1	369.7	364.7	360.2
27.5°	369.3	367.0	367.0	364.7	363.0	361.4	360.2	356.8	352.3	348.3	342.7
30°	348.3	348.9	346.1	345.6	342.7	341.7	339.4	336.0	332.1	327.5	323.0
32.5°	325.9	324.2	324.2	321.9	319.7	318.0	317.4	313.4	310.1	305.6	301.1
35°	299.5	299.5	297.7	297.2	294.9	293.7	292.1	289.8	285.8	282.0	278.6
37.5°	273.5	272.3	271.9	270.7	269.0	267.3	267.3	263.4	262.8	258.4	253.8
40°	244.9	245.9	244.9	243.2	242.6	241.4	240.9	238.6	237.0	233.0	230.2
42.5°	220.6	219.5	219.5	218.9	216.7	216.7	215.6	214.4	211.6	210.4	207.1
45°	195.9	196.9	195.3	195.9	193.6	193.6	193.6	191.3	189.0	187.4	185.1
47.5°	174.5	175.1	175.1	173.4	172.8	172.8	171.6	170.5	168.9	166.6	164.9
50°	155.9	156.4	155.4	154.8	153.7	153.1	153.1	150.8	149.7	147.5	146.4
52.5°	139.0	139.0	138.5	138.5	136.7	136.7	135.6	134.0	132.8	131.7	128.9
55°	123.8	123.8	123.2	122.7	122.7	121.1	120.5	118.8	117.6	115.3	113.6
57.5°	109.2	109.7	109.2	108.6	108.0	107.6	106.4	104.7	103.6	101.8	100.7
60°	97.4	97.4	96.8	96.2	95.1	94.5	94.0	92.9	91.2	90.1	88.3
62.5°	86.2	85.6	85.0	84.4	83.3	83.3	82.2	81.0	79.3	78.3	77.1
65°	74.3	74.3	73.7	73.7	73.1	72.1	71.5	70.9	68.7	68.1	65.8
67.5°	63.6	64.2	63.0	63.0	61.9	61.9	61.3	59.6	59.2	58.0	56.9
70°	54.0	54.0	54.0	53.4	52.3	51.7	51.3	50.1	49.5	48.4	47.3
72.5°	44.5	44.5	43.9	43.9	43.4	42.8	42.2	41.1	41.1	39.9	38.8
75°	36.0	36.0	35.5	34.9	34.3	34.3	33.8	33.2	32.0	31.5	31.0
77.5°	27.6	27.6	27.6	27.0	26.4	26.4	26.4	25.3	24.3	24.3	23.7
80°	20.3	20.3	19.7	19.7	19.1	19.1	19.1	18.5	18.0	17.4	16.8
82.5°	13.5	13.5	13.5	13.5	12.9	12.9	12.9	12.4	11.8	11.8	11.8
85°	7.9	7.9	7.9	7.9	7.3	7.3	7.3	7.3	7.3	6.8	6.8
87.5°	3.3	2.9	3.3	2.9	3.3	2.9	3.3	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°	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3
2.5°	400.7	400.2	399.6	399.0	399.0	398.4	397.3	396.7	396.3	395.7	395.7
5°	403.0	402.4	401.3	400.2	399.6	398.4	397.3	396.3	395.1	393.4	392.8
7.5°	404.6	403.0	401.9	399.6	399.0	397.9	396.3	394.5	392.3	390.0	388.4
10°	404.6	402.4	400.7	397.9	396.7	395.7	393.4	390.5	387.8	385.5	382.8
12.5°	403.6	400.7	397.9	395.1	393.4	391.7	388.4	385.5	382.2	378.8	376.5
15°	399.6	396.3	392.8	389.5	387.8	385.5	382.2	378.2	374.9	371.4	367.5
17.5°	392.3	388.9	384.9	381.0	378.8	377.0	372.0	369.3	364.1	360.8	357.4
20°	382.8	378.8	373.7	369.7	367.0	365.3	361.4	356.2	352.3	347.3	343.9
22.5°	370.3	365.3	360.2	356.2	353.5	351.2	346.1	341.1	337.7	333.2	329.2
25°	355.6	350.6	345.6	340.0	337.1	334.8	330.4	325.9	321.3	316.3	313.0
27.5°	338.2	332.6	328.1	323.0	320.3	316.9	311.8	307.2	302.8	299.5	294.9
30°	319.1	313.0	308.4	303.3	300.5	297.7	292.7	288.1	284.2	280.2	278.1
32.5°	296.0	291.6	287.0	282.0	279.7	278.1	272.9	268.4	264.0	260.6	258.8
35°	274.1	269.0	265.1	260.6	257.8	256.1	251.5	247.6	245.3	241.4	239.2
37.5°	251.0	247.1	242.6	238.0	236.4	234.7	231.4	227.4	223.9	221.2	220.0
40°	226.8	223.5	219.5	216.7	215.0	213.3	210.4	207.7	205.4	202.6	201.5
42.5°	203.7	201.5	198.1	194.8	193.0	192.5	189.0	186.9	185.7	184.6	183.4
45°	183.0	179.5	177.3	175.1	173.4	172.2	170.5	168.9	167.7	166.6	165.5
47.5°	162.6	159.9	157.6	155.9	154.2	153.7	152.5	150.8	149.7	149.7	149.7
50°	144.1	141.8	139.6	138.5	137.9	136.7	135.6	135.0	134.6	134.6	134.6
52.5°	127.7	125.5	123.8	122.7	122.7	121.5	120.5	119.9	119.9	119.9	119.9
55°	112.6	110.9	109.7	108.6	107.6	107.0	107.0	107.0	106.4	106.4	107.0
57.5°	99.1	97.9	96.2	95.1	94.5	94.5	94.0	93.4	94.0	94.5	95.1
60°	86.6	85.6	85.0	83.3	83.3	83.3	82.7	82.7	82.7	83.3	83.9
62.5°	75.4	74.8	73.7	73.1	72.7	72.7	72.1	72.1	72.1	72.1	72.7
65°	65.2	64.2	63.0	63.0	63.0	62.5	62.5	61.3	61.9	61.9	61.3
67.5°	55.7	54.6	54.0	53.4	52.9	52.9	52.3	51.7	51.3	51.3	51.3
70°	46.7	45.5	45.5	44.5	44.5	43.9	43.4	43.4	42.8	42.2	41.7
72.5°	37.8	37.2	36.6	36.0	36.0	36.0	35.5	34.9	34.3	33.8	32.6
75°	29.9	29.9	28.7	28.1	28.1	27.6	27.0	26.4	25.9	25.3	24.7
77.5°	23.1	22.5	21.4	20.8	20.8	20.8	20.3	19.7	19.1	18.5	18.0
80°	16.8	16.4	15.8	15.2	15.2	15.2	14.6	14.6	14.1	14.1	14.1
82.5°	11.2	11.2	10.6	10.6	10.6	10.6	10.2	10.2	10.2	10.2	10.2
85°	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3
2.5°	394.5	394.5	393.4	392.8	392.3	392.8	391.7	391.1	390.5	390.5	390.0
5°	391.1	390.5	388.4	387.8	387.2	386.7	385.5	384.4	383.2	382.8	382.2
7.5°	386.7	384.9	382.8	382.2	381.6	379.9	378.2	377.0	375.3	374.9	373.7
10°	380.5	378.2	376.5	374.9	373.7	372.0	370.3	368.7	366.4	365.8	364.1
12.5°	373.1	370.3	367.0	366.4	364.7	362.4	360.2	358.5	356.8	355.6	354.0
15°	364.1	361.4	357.9	356.2	354.6	352.9	350.0	347.9	346.1	344.4	342.7
17.5°	353.5	350.0	347.3	345.6	344.4	341.7	339.4	336.5	334.8	333.2	331.5
20°	340.5	337.7	333.8	332.1	331.5	329.2	326.5	325.3	323.0	321.3	320.3
22.5°	325.9	323.0	319.7	318.6	316.3	315.1	312.4	311.2	310.1	308.4	307.8
25°	309.5	306.8	303.9	303.3	301.6	300.5	298.9	297.2	297.2	295.5	295.5
27.5°	292.7	289.8	287.6	286.4	285.8	284.8	283.1	282.5	282.0	281.4	281.4
30°	274.6	271.3	270.2	269.6	269.0	267.9	267.3	266.2	266.7	267.3	266.7
32.5°	255.5	254.4	252.1	251.0	251.5	251.0	249.9	251.0	250.5	251.5	252.1
35°	237.0	235.8	234.7	234.7	233.5	233.5	233.5	234.1	235.3	235.8	237.0
37.5°	218.9	217.3	216.7	216.2	216.7	216.7	216.7	217.8	218.9	220.0	221.8
40°	199.8	198.7	198.7	198.7	198.7	200.4	199.8	200.9	202.1	203.7	205.4
42.5°	181.8	181.8	182.4	182.4	182.4	182.4	183.4	185.1	186.9	188.6	190.2
45°	164.9	164.9	164.9	166.0	166.0	166.6	168.9	169.9	171.1	172.8	174.5
47.5°	149.1	149.1	149.7	150.2	150.8	152.0	153.1	154.8	156.4	157.6	159.3
50°	134.6	135.0	136.2	137.3	137.3	137.9	139.6	140.7	141.8	143.5	144.1
52.5°	120.5	121.5	122.7	123.2	123.8	125.0	125.5	127.1	127.7	129.4	130.0
55°	107.6	108.0	109.7	110.3	110.3	111.5	112.6	113.6	115.3	115.3	116.5
57.5°	95.7	96.2	97.4	97.9	97.4	99.1	99.7	100.7	101.3	102.4	103.0
60°	83.9	85.0	85.6	85.6	86.2	86.6	87.8	87.8	88.9	90.1	90.1
62.5°	72.7	73.1	73.7	74.3	74.8	74.3	76.0	76.0	77.1	77.7	78.8
65°	61.9	62.5	62.5	63.0	63.0	63.6	63.6	64.2	64.8	65.8	66.4
67.5°	51.3	51.3	51.3	51.7	51.3	51.7	51.7	52.3	52.3	53.4	54.0
70°	41.7	41.1	40.5	40.5	40.5	40.5	39.9	40.5	40.5	41.1	41.1
72.5°	32.0	31.5	31.0	30.4	30.4	29.9	29.3	29.9	29.9	30.4	30.4
75°	24.3	23.1	23.1	23.1	22.5	22.5	22.5	23.1	23.1	23.1	23.7
77.5°	18.0	18.0	17.4	17.4	17.4	18.0	18.0	18.5	18.5	18.5	18.5
80°	13.5	14.1	14.1	14.1	14.1	14.6	14.6	14.6	14.6	15.2	15.2
82.5°	10.2	10.2	10.2	10.2	10.6	10.6	10.6	10.6	10.6	10.6	10.6
85°	6.2	6.8	6.8	6.2	6.8	6.8	6.8	6.8	6.8	6.8	6.8
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	396.3	396.3	396.3	396.3	396.3	396.3	396.3	396.3
2.5°	389.5	389.5	389.5	389.5	388.9	388.9	388.9	388.4
5°	381.0	381.0	381.0	379.9	380.5	380.5	379.3	379.9
7.5°	372.6	372.0	371.4	371.4	370.9	370.3	369.7	370.3
10°	363.0	361.4	361.4	360.8	360.8	359.6	359.6	360.2
12.5°	352.3	351.2	351.2	350.6	350.0	349.5	348.9	348.9
15°	341.7	340.5	340.0	339.4	338.8	337.7	338.2	337.7
17.5°	330.9	329.2	329.2	328.6	328.1	327.0	327.0	326.5
20°	318.6	318.0	316.9	317.4	316.9	315.7	315.1	315.1
22.5°	306.2	306.2	305.6	305.6	305.1	304.5	303.9	303.9
25°	294.3	293.7	294.3	294.3	292.7	292.7	292.7	293.3
27.5°	280.8	281.4	280.8	280.8	280.8	280.8	281.4	280.8
30°	267.3	267.3	267.3	267.9	269.0	268.4	268.4	267.9
32.5°	252.7	253.2	253.2	253.8	254.4	255.5	255.5	256.1
35°	238.0	239.2	239.7	239.2	240.9	240.9	242.0	242.0
37.5°	222.9	223.5	224.5	225.1	226.2	226.8	227.4	227.4
40°	206.5	208.8	209.4	210.0	211.6	211.6	212.2	213.3
42.5°	191.3	193.6	194.2	194.8	195.9	197.5	196.9	198.1
45°	176.7	178.4	179.0	179.5	181.3	181.8	181.8	183.4
47.5°	161.0	162.0	162.6	163.8	164.9	166.0	167.2	166.6
50°	145.2	146.9	148.1	148.5	150.2	150.8	151.4	152.0
52.5°	131.1	132.3	132.8	133.4	135.0	135.6	136.2	137.3
55°	117.6	118.2	119.3	118.8	120.5	121.1	121.5	122.7
57.5°	104.1	104.7	105.3	105.3	106.4	107.6	108.0	108.6
60°	91.2	92.3	92.9	92.9	92.9	94.0	94.0	94.0
62.5°	79.3	79.3	79.9	79.9	81.0	81.0	81.0	81.0
65°	66.9	67.5	68.1	68.1	69.2	68.7	69.8	69.2
67.5°	54.0	54.0	55.2	55.2	54.6	55.2	55.2	55.2
70°	41.1	41.1	41.7	41.7	41.7	41.7	41.7	41.7
72.5°	30.4	30.4	30.4	31.0	30.4	30.4	31.0	30.4
75°	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
77.5°	18.5	18.5	19.1	19.1	19.1	19.1	19.1	19.1
80°	15.2	15.2	15.2	15.2	15.8	15.2	15.2	15.2
82.5°	11.2	10.6	11.2	10.6	11.2	11.2	11.2	11.2
85°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
87.5°	2.9	2.9	2.9	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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)