

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: P583643

Luminaire Tested: **HC807D010-HM80520927-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583643
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-HM80520927-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 719.6 lumens
Efficiency: N/A
Efficacy: 89.9 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

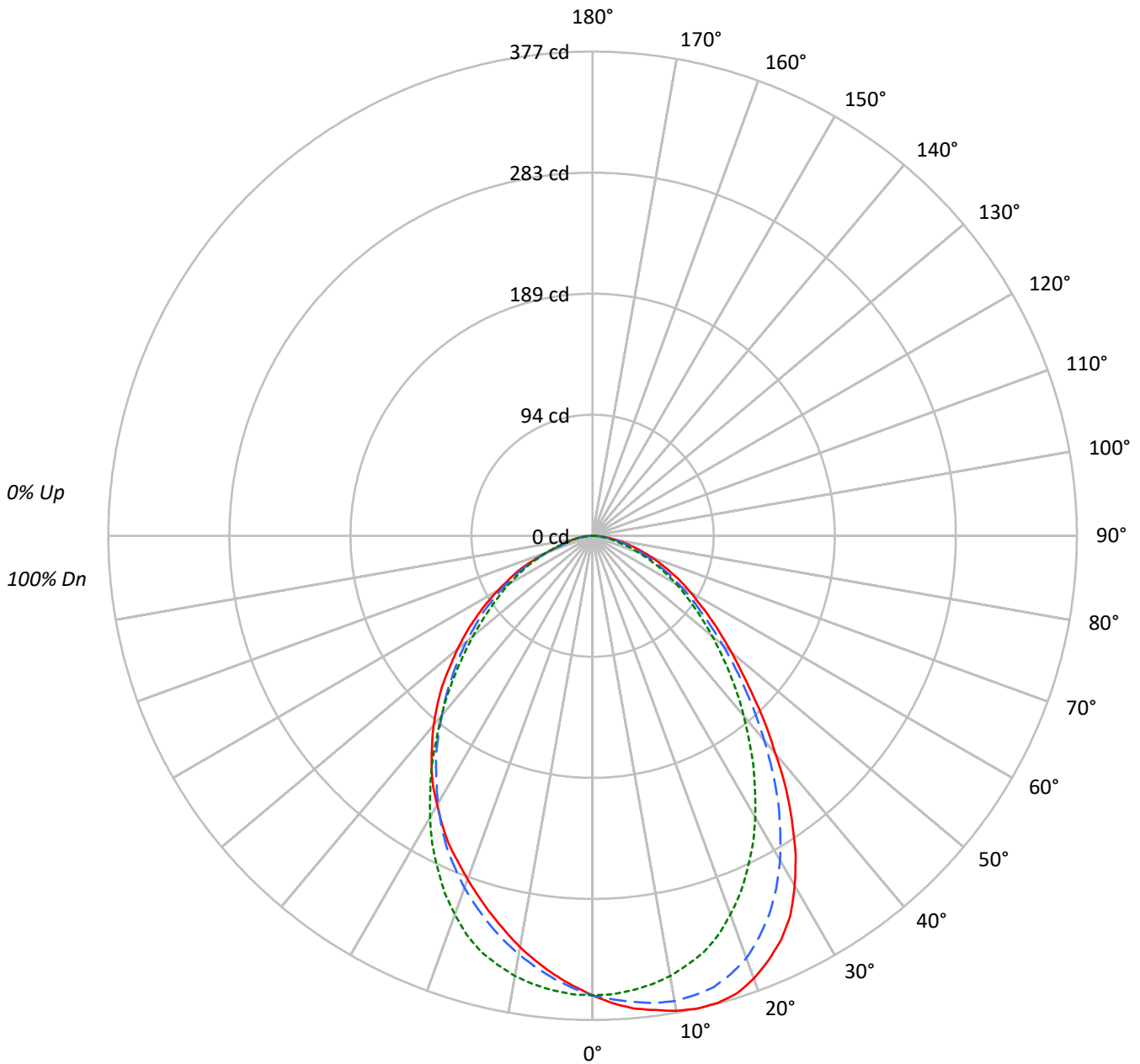
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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								
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°	11033	11033	11033
5°	11438	10998	10617
10°	11761	10900	10186
15°	12019	10707	9737
20°	12040	10291	9336
25°	11810	9717	9010
30°	11198	9012	8613
35°	10175	8206	8229
40°	8900	7366	7753
45°	7714	6563	7222
50°	6755	5824	6582
55°	6016	5166	5957
60°	5427	4638	5230
65°	4889	4079	4560
70°	4400	3435	3390
75°	3872	2716	2550
80°	3250	2255	2433
85°	2547	1981	2158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.8	4.7
10°-20°	95.1	13.2
20°-30°	135.9	18.9
30°-40°	144.4	20.1
40°-50°	124.3	17.3
50°-60°	92.9	12.9
60°-70°	59.3	8.2
70°-80°	27.0	3.7
80°-90°	7.1	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°	264.7	36.8
0°-40°	409.0	56.8
0°-60°	626.2	87.0
0°-90°	719.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	719.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	358	358	358	358	358	
5°	370	364	355	346	343	35
15°	376	364	335	312	305	106
25°	347	325	286	268	265	159
35°	270	252	218	212	219	168
45°	177	167	150	154	166	137
55°	112	103	96	104	111	101
65°	67	60	56	58	62	67
75°	32	28	23	21	21	35
85°	7	6	6	6	6	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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	364.4	363.4	363.9	363.4	363.9	363.9	362.8	362.8	362.8	362.8	361.4
5°	369.5	368.9	368.9	368.4	367.9	368.4	367.9	367.5	366.4	365.9	364.4
7.5°	372.5	372.5	372.5	372.5	372.0	371.5	370.9	370.0	368.9	367.9	366.9
10°	375.6	376.1	375.6	375.0	374.5	373.6	373.0	372.0	370.5	368.9	367.9
12.5°	377.0	377.0	376.5	376.5	375.6	375.0	373.6	372.0	370.5	368.9	366.4
15°	376.5	376.5	376.1	375.6	374.0	373.6	372.5	370.9	368.4	366.4	363.9
17.5°	373.6	373.0	372.0	372.0	370.0	369.5	368.4	366.4	363.9	360.8	357.8
20°	366.9	366.9	366.4	365.9	363.9	362.3	361.4	358.7	356.7	353.2	350.1
22.5°	357.8	358.7	357.8	356.7	354.2	353.7	352.2	349.2	346.1	342.0	338.4
25°	347.1	346.6	346.1	345.1	343.0	342.0	340.0	336.9	333.9	329.3	325.3
27.5°	333.4	331.4	331.4	329.3	327.8	326.2	325.3	322.2	318.1	314.5	309.5
30°	314.5	315.1	312.5	312.0	309.5	308.4	306.4	303.4	299.8	295.8	291.7
32.5°	294.2	292.7	292.7	290.6	288.6	287.2	286.6	283.1	280.0	275.9	271.9
35°	270.3	270.3	268.9	268.3	266.2	265.3	263.7	261.7	258.1	254.7	251.5
37.5°	247.0	245.9	245.5	244.4	242.9	241.4	241.4	237.8	237.3	233.3	229.2
40°	221.1	222.0	221.1	219.5	219.0	218.0	217.5	215.5	213.9	210.4	207.8
42.5°	199.2	198.3	198.3	197.7	195.6	195.6	194.7	193.6	191.1	190.0	187.0
45°	176.9	177.8	176.4	176.9	174.8	174.8	174.8	172.8	170.8	169.2	167.2
47.5°	157.5	158.1	158.1	156.5	156.1	156.1	155.0	154.0	152.5	150.5	148.9
50°	140.8	141.2	140.3	139.7	138.7	138.3	138.3	136.2	135.2	133.1	132.2
52.5°	125.5	125.5	125.0	125.0	123.4	123.4	122.5	120.9	120.0	118.9	116.4
55°	111.9	111.9	111.3	110.8	110.8	109.2	108.7	107.2	106.2	104.2	102.7
57.5°	98.6	99.1	98.6	98.1	97.5	97.0	96.1	94.5	93.4	92.0	90.9
60°	88.0	88.0	87.4	86.9	85.9	85.3	84.8	83.9	82.3	81.3	79.8
62.5°	77.8	77.2	76.7	76.2	75.2	75.2	74.2	73.1	71.7	70.6	69.7
65°	67.0	67.0	66.6	66.6	66.1	65.0	64.5	64.1	62.0	61.5	59.5
67.5°	57.5	58.0	56.9	56.9	55.9	55.9	55.4	53.9	53.4	52.3	51.4
70°	48.8	48.8	48.8	48.3	47.2	46.7	46.2	45.2	44.7	43.7	42.7
72.5°	40.2	40.2	39.7	39.7	39.1	38.6	38.1	37.0	37.0	36.1	35.0
75°	32.5	32.5	32.0	31.5	31.0	31.0	30.5	30.0	28.9	28.4	28.0
77.5°	24.9	24.9	24.9	24.4	23.9	23.9	23.9	22.8	21.9	21.9	21.4
80°	18.3	18.3	17.8	17.8	17.3	17.3	17.3	16.7	16.3	15.8	15.3
82.5°	12.2	12.2	12.2	12.2	11.7	11.7	11.7	11.2	10.6	10.6	10.6
85°	7.2	7.2	7.2	7.2	6.6	6.6	6.6	6.6	6.6	6.1	6.1
87.5°	3.1	2.5	3.1	2.5	3.1	2.5	3.1	2.5	2.5	2.5	2.5
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	361.8	361.4	360.8	360.3	360.3	359.8	358.7	358.3	357.8	357.3	357.3
5°	363.9	363.4	362.3	361.4	360.8	359.8	358.7	357.8	356.7	355.3	354.7
7.5°	365.4	363.9	362.8	360.8	360.3	359.3	357.8	356.2	354.2	352.2	350.6
10°	365.4	363.4	361.8	359.3	358.3	357.3	355.3	352.6	350.1	348.1	345.6
12.5°	364.4	361.8	359.3	356.7	355.3	353.7	350.6	348.1	345.1	342.0	340.0
15°	360.8	357.8	354.7	351.7	350.1	348.1	345.1	341.5	338.4	335.4	331.9
17.5°	354.2	351.2	347.6	344.0	342.0	340.5	335.9	333.4	328.7	325.8	322.7
20°	345.6	342.0	337.5	333.9	331.4	329.8	326.2	321.7	318.1	313.6	310.5
22.5°	334.4	329.8	325.3	321.7	319.2	317.2	312.5	308.0	305.0	300.9	297.3
25°	321.2	316.6	312.0	307.0	304.4	302.3	298.3	294.2	290.1	285.6	282.5
27.5°	305.4	300.3	296.2	291.7	289.2	286.1	281.5	277.5	273.4	270.3	266.2
30°	288.1	282.5	278.4	273.9	271.4	268.9	264.2	260.2	256.7	253.1	251.1
32.5°	267.3	263.3	259.2	254.7	252.6	251.1	246.5	242.3	238.3	235.3	233.7
35°	247.5	242.9	239.4	235.3	232.8	231.2	227.2	223.6	221.6	218.0	215.9
37.5°	226.7	223.1	219.0	215.0	213.4	211.9	208.9	205.3	202.3	199.7	198.7
40°	204.8	201.7	198.3	195.6	194.1	192.6	190.0	187.5	185.5	183.0	181.9
42.5°	183.9	181.9	178.9	175.8	174.4	173.8	170.8	168.7	167.7	166.7	165.6
45°	165.1	162.2	160.1	158.1	156.5	155.5	154.0	152.5	151.4	150.5	149.4
47.5°	146.9	144.4	142.3	140.8	139.2	138.7	137.7	136.2	135.2	135.2	135.2
50°	130.1	128.1	126.1	125.0	124.5	123.4	122.5	122.0	121.4	121.4	121.4
52.5°	115.3	113.3	111.9	110.8	110.8	109.8	108.7	108.3	108.3	108.3	108.3
55°	101.7	100.1	99.1	98.1	97.0	96.6	96.6	96.6	96.1	96.1	96.6
57.5°	89.4	88.4	86.9	85.9	85.3	85.3	84.8	84.4	84.8	85.3	85.9
60°	78.3	77.2	76.7	75.2	75.2	75.2	74.7	74.7	74.7	75.2	75.8
62.5°	68.1	67.6	66.6	66.1	65.6	65.6	65.0	65.0	65.0	65.0	65.6
65°	58.9	58.0	56.9	56.9	56.9	56.4	56.4	55.4	55.9	55.9	55.4
67.5°	50.3	49.4	48.8	48.3	47.8	47.8	47.2	46.7	46.2	46.2	46.2
70°	42.2	41.1	41.1	40.2	40.2	39.7	39.1	39.1	38.6	38.1	37.6
72.5°	34.1	33.6	33.0	32.5	32.5	32.5	32.0	31.5	31.0	30.5	29.5
75°	26.9	26.9	25.9	25.5	25.5	24.9	24.4	23.9	23.4	22.8	22.3
77.5°	20.8	20.3	19.4	18.8	18.8	18.8	18.3	17.8	17.3	16.7	16.3
80°	15.3	14.7	14.2	13.7	13.7	13.7	13.3	13.3	12.7	12.7	12.7
82.5°	10.2	10.2	9.7	9.7	9.7	9.7	9.2	9.2	9.2	9.2	9.2
85°	6.1	6.1	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	356.2	356.2	355.3	354.7	354.2	354.7	353.7	353.2	352.6	352.6	352.2
5°	353.2	352.6	350.6	350.1	349.7	349.2	348.1	347.1	346.1	345.6	345.1
7.5°	349.2	347.6	345.6	345.1	344.5	343.0	341.5	340.5	338.9	338.4	337.5
10°	343.6	341.5	340.0	338.4	337.5	335.9	334.4	332.8	330.8	330.3	328.7
12.5°	336.9	334.4	331.4	330.8	329.3	327.3	325.3	323.7	322.2	321.2	319.7
15°	328.7	326.2	323.2	321.7	320.1	318.6	316.1	314.0	312.5	311.1	309.5
17.5°	319.2	316.1	313.6	312.0	311.1	308.4	306.4	303.9	302.3	300.9	299.3
20°	307.5	305.0	301.4	299.8	299.3	297.3	294.7	293.7	291.7	290.1	289.2
22.5°	294.2	291.7	288.6	287.6	285.6	284.5	282.0	281.1	280.0	278.4	278.0
25°	279.5	277.0	274.4	273.9	272.3	271.4	269.8	268.3	268.3	266.8	266.8
27.5°	264.2	261.7	259.7	258.7	258.1	257.2	255.6	255.1	254.7	254.1	254.1
30°	248.0	245.0	243.9	243.4	242.9	241.9	241.4	240.3	240.9	241.4	240.9
32.5°	230.8	229.7	227.6	226.7	227.2	226.7	225.6	226.7	226.1	227.2	227.6
35°	213.9	212.9	211.9	211.9	210.9	210.9	210.9	211.4	212.5	212.9	213.9
37.5°	197.7	196.1	195.6	195.1	195.6	195.6	195.6	196.7	197.7	198.7	200.3
40°	180.4	179.4	179.4	179.4	179.4	180.9	180.4	181.4	182.5	183.9	185.5
42.5°	164.2	164.2	164.7	164.7	164.7	164.7	165.6	167.2	168.7	170.3	171.7
45°	148.9	148.9	148.9	150.0	150.0	150.5	152.5	153.4	154.5	156.1	157.5
47.5°	134.7	134.7	135.2	135.6	136.2	137.2	138.3	139.7	141.2	142.3	143.8
50°	121.4	122.0	123.0	124.0	124.0	124.5	126.1	127.0	128.1	129.5	130.1
52.5°	108.7	109.8	110.8	111.3	111.9	112.8	113.3	114.8	115.3	116.9	117.3
55°	97.0	97.5	99.1	99.7	99.7	100.6	101.7	102.7	104.2	104.2	105.2
57.5°	86.4	86.9	88.0	88.4	88.0	89.4	90.0	90.9	91.4	92.5	93.0
60°	75.8	76.7	77.2	77.2	77.8	78.3	79.2	79.2	80.3	81.3	81.3
62.5°	65.6	66.1	66.6	67.0	67.6	67.0	68.6	68.6	69.7	70.1	71.1
65°	55.9	56.4	56.4	56.9	56.9	57.5	57.5	58.0	58.4	59.5	60.0
67.5°	46.2	46.2	46.2	46.7	46.2	46.7	46.7	47.2	47.2	48.3	48.8
70°	37.6	37.0	36.6	36.6	36.6	36.6	36.1	36.6	36.6	37.0	37.0
72.5°	28.9	28.4	28.0	27.5	27.5	26.9	26.4	26.9	26.9	27.5	27.5
75°	21.9	20.8	20.8	20.8	20.3	20.3	20.3	20.8	20.8	20.8	21.4
77.5°	16.3	16.3	15.8	15.8	15.8	16.3	16.3	16.7	16.7	16.7	16.7
80°	12.2	12.7	12.7	12.7	12.7	13.3	13.3	13.3	13.3	13.7	13.7
82.5°	9.2	9.2	9.2	9.2	9.7	9.7	9.7	9.7	9.7	9.7	9.7
85°	5.6	6.1	6.1	5.6	6.1	6.1	6.1	6.1	6.1	6.1	6.1
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	351.7	351.7	351.7	351.7	351.2	351.2	351.2	350.6
5°	344.0	344.0	344.0	343.0	343.6	343.6	342.5	343.0
7.5°	336.4	335.9	335.4	335.4	334.8	334.4	333.9	334.4
10°	327.8	326.2	326.2	325.8	325.8	324.7	324.7	325.3
12.5°	318.1	317.2	317.2	316.6	316.1	315.6	315.1	315.1
15°	308.4	307.5	307.0	306.4	305.9	305.0	305.4	305.0
17.5°	298.9	297.3	297.3	296.8	296.2	295.3	295.3	294.7
20°	287.6	287.2	286.1	286.6	286.1	285.1	284.5	284.5
22.5°	276.4	276.4	275.9	275.9	275.4	275.0	274.4	274.4
25°	265.8	265.3	265.8	265.8	264.2	264.2	264.2	264.8
27.5°	253.6	254.1	253.6	253.6	253.6	253.6	254.1	253.6
30°	241.4	241.4	241.4	241.9	242.9	242.3	242.3	241.9
32.5°	228.1	228.7	228.7	229.2	229.7	230.8	230.8	231.2
35°	215.0	215.9	216.5	215.9	217.5	217.5	218.6	218.6
37.5°	201.2	201.7	202.8	203.3	204.3	204.8	205.3	205.3
40°	186.5	188.6	189.0	189.5	191.1	191.1	191.6	192.6
42.5°	172.8	174.8	175.3	175.8	176.9	178.4	177.8	178.9
45°	159.5	161.1	161.6	162.2	163.6	164.2	164.2	165.6
47.5°	145.3	146.4	146.9	147.9	148.9	150.0	150.9	150.5
50°	131.1	132.6	133.6	134.2	135.6	136.2	136.7	137.2
52.5°	118.4	119.4	120.0	120.5	122.0	122.5	123.0	124.0
55°	106.2	106.7	107.8	107.2	108.7	109.2	109.8	110.8
57.5°	94.0	94.5	95.0	95.0	96.1	97.0	97.5	98.1
60°	82.3	83.3	83.9	83.9	83.9	84.8	84.8	84.8
62.5°	71.7	71.7	72.2	72.2	73.1	73.1	73.1	73.1
65°	60.5	60.9	61.5	61.5	62.5	62.0	63.0	62.5
67.5°	48.8	48.8	49.8	49.8	49.4	49.8	49.8	49.8
70°	37.0	37.0	37.6	37.6	37.6	37.6	37.6	37.6
72.5°	27.5	27.5	27.5	28.0	27.5	27.5	28.0	27.5
75°	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
77.5°	16.7	16.7	17.3	17.3	17.3	17.3	17.3	17.3
80°	13.7	13.7	13.7	13.7	14.2	13.7	13.7	13.7
82.5°	10.2	9.7	10.2	9.7	10.2	10.2	10.2	10.2
85°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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)