

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: P583592

Luminaire Tested: **HC807D010-HM80520830-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583592
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-HM80520830-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 881.4 lumens
Efficiency: N/A
Efficacy: 110.2 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

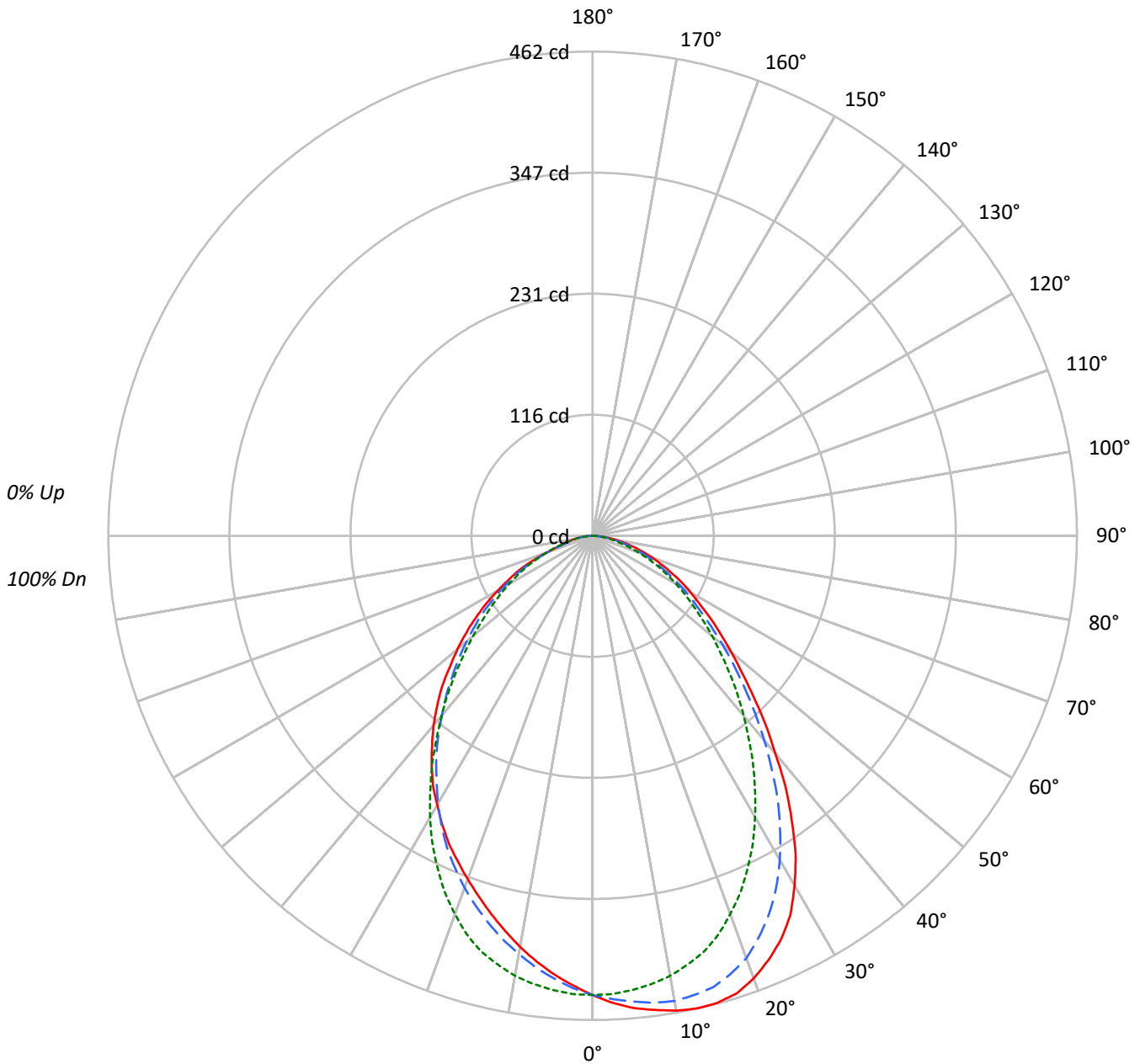
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13512	13512	13512
5°	14007	13468	13007
10°	14407	13351	12475
15°	14727	13114	11927
20°	14747	12604	11439
25°	14467	11905	11034
30°	13723	11038	10554
35°	12464	10055	10077
40°	10901	9021	9496
45°	9450	8037	8848
50°	8271	7138	8064
55°	7360	6328	7301
60°	6642	5680	6414
65°	5998	4998	5589
70°	5392	4210	4147
75°	4742	3336	3122
80°	3996	2752	2983
85°	3078	2406	2654



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	4.7
10°-20°	116.4	13.2
20°-30°	166.4	18.9
30°-40°	176.8	20.1
40°-50°	152.2	17.3
50°-60°	113.8	12.9
60°-70°	72.6	8.2
70°-80°	33.0	3.7
80°-90°	8.7	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°	324.2	36.8
0°-40°	501.0	56.8
0°-60°	767.1	87.0
0°-90°	881.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	881.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	438	438	438	438	438	
5°	452	446	435	424	420	43
15°	461	446	411	383	374	130
25°	425	398	350	329	324	195
35°	331	308	267	260	268	206
45°	217	205	184	189	203	168
55°	137	126	118	128	136	123
65°	82	73	68	72	77	82
75°	40	34	28	26	26	42
85°	9	8	7	8	8	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°	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2
2.5°	446.3	445.1	445.7	445.1	445.7	445.7	444.4	444.4	444.4	444.4	442.6
5°	452.5	451.9	451.9	451.4	450.8	451.4	450.8	450.0	448.8	448.2	446.3
7.5°	456.3	456.3	456.3	456.3	455.7	455.1	454.5	453.1	451.9	450.8	449.4
10°	460.1	460.7	460.1	459.4	458.8	457.6	457.0	455.7	453.9	451.9	450.8
12.5°	461.9	461.9	461.3	461.3	460.1	459.4	457.6	455.7	453.9	451.9	448.8
15°	461.3	461.3	460.7	460.1	458.2	457.6	456.3	454.5	451.4	448.8	445.7
17.5°	457.6	457.0	455.7	455.7	453.1	452.5	451.4	448.8	445.7	442.0	438.2
20°	449.4	449.4	448.8	448.2	445.7	443.8	442.6	439.5	437.0	432.6	428.9
22.5°	438.2	439.5	438.2	437.0	433.9	433.3	431.4	427.7	424.0	419.0	414.5
25°	425.2	424.6	424.0	422.7	420.2	419.0	416.5	412.8	408.9	403.4	398.4
27.5°	408.3	405.8	405.8	403.4	401.5	399.6	398.4	394.7	389.7	385.4	379.1
30°	385.4	386.0	382.9	382.2	379.1	377.9	375.3	371.6	367.2	362.3	357.3
32.5°	360.4	358.6	358.6	356.1	353.6	351.7	351.1	346.8	343.0	338.1	333.0
35°	331.1	331.1	329.3	328.6	326.2	324.9	323.1	320.6	316.2	311.9	308.2
37.5°	302.6	301.3	300.7	299.5	297.6	295.6	295.6	291.3	290.7	285.7	280.7
40°	270.8	272.0	270.8	268.9	268.3	267.1	266.5	264.0	262.1	257.8	254.7
42.5°	244.0	242.8	242.8	242.1	239.7	239.7	238.4	237.2	234.1	232.8	229.1
45°	216.7	217.8	216.1	216.7	214.1	214.1	214.1	211.6	209.1	207.3	204.8
47.5°	193.0	193.6	193.6	191.7	191.1	191.1	189.9	188.6	186.8	184.3	182.4
50°	172.4	173.0	171.8	171.2	169.9	169.3	169.3	166.8	165.6	163.1	161.8
52.5°	153.8	153.8	153.1	153.1	151.3	151.3	150.0	148.2	146.9	145.7	142.6
55°	136.9	136.9	136.3	135.8	135.8	133.8	133.2	131.3	130.1	127.6	125.7
57.5°	120.8	121.4	120.8	120.1	119.5	118.9	117.7	115.8	114.6	112.7	111.4
60°	107.7	107.7	107.1	106.5	105.2	104.6	104.0	102.8	100.9	99.5	97.8
62.5°	95.2	94.6	94.0	93.3	92.1	92.1	90.9	89.6	87.8	86.5	85.3
65°	82.2	82.2	81.5	81.5	80.9	79.7	79.1	78.4	76.0	75.3	72.8
67.5°	70.4	71.0	69.7	69.7	68.5	68.5	67.9	66.0	65.4	64.2	62.9
70°	59.8	59.8	59.8	59.2	57.8	57.2	56.6	55.4	54.7	53.5	52.3
72.5°	49.2	49.2	48.5	48.5	47.9	47.3	46.7	45.4	45.4	44.2	42.9
75°	39.8	39.8	39.2	38.6	38.0	38.0	37.4	36.7	35.5	34.9	34.3
77.5°	30.5	30.5	30.5	29.9	29.3	29.3	29.3	28.0	26.8	26.8	26.2
80°	22.5	22.5	21.7	21.7	21.2	21.2	21.2	20.6	20.0	19.2	18.6
82.5°	14.9	14.9	14.9	14.9	14.3	14.3	14.3	13.7	13.0	13.0	13.0
85°	8.7	8.7	8.7	8.7	8.1	8.1	8.1	8.1	8.1	7.5	7.5
87.5°	3.7	3.1	3.7	3.1	3.7	3.1	3.7	3.1	3.1	3.1	3.1
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°	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2
2.5°	443.2	442.6	442.0	441.3	441.3	440.7	439.5	438.9	438.2	437.6	437.6
5°	445.7	445.1	443.8	442.6	442.0	440.7	439.5	438.2	437.0	435.1	434.5
7.5°	447.5	445.7	444.4	442.0	441.3	440.1	438.2	436.4	433.9	431.4	429.5
10°	447.5	445.1	443.2	440.1	438.9	437.6	435.1	432.0	428.9	426.4	423.3
12.5°	446.3	443.2	440.1	437.0	435.1	433.3	429.5	426.4	422.7	419.0	416.5
15°	442.0	438.2	434.5	430.8	428.9	426.4	422.7	418.4	414.5	410.8	406.5
17.5°	433.9	430.2	425.8	421.5	419.0	417.1	411.4	408.3	402.7	399.0	395.3
20°	423.3	419.0	413.4	408.9	405.8	404.0	399.6	394.0	389.7	384.1	380.4
22.5°	409.6	404.0	398.4	394.0	390.9	388.5	382.9	377.3	373.6	368.5	364.1
25°	393.4	387.8	382.2	375.9	372.8	370.5	365.4	360.4	355.4	349.9	346.1
27.5°	374.2	367.9	362.9	357.3	354.2	350.5	344.9	339.9	335.0	331.1	326.2
30°	353.0	346.1	341.2	335.6	332.4	329.3	323.7	318.7	314.4	310.0	307.5
32.5°	327.4	322.4	317.5	311.9	309.4	307.5	301.9	297.0	291.9	288.2	286.3
35°	303.2	297.6	293.3	288.2	285.1	283.2	278.3	273.9	271.4	267.1	264.6
37.5°	277.6	273.3	268.3	263.4	261.5	259.6	255.8	251.5	247.7	244.6	243.4
40°	250.8	247.1	242.8	239.7	237.8	235.9	232.8	229.7	227.2	224.1	222.9
42.5°	225.4	222.9	219.2	215.3	213.5	212.9	209.1	206.6	205.4	204.2	202.9
45°	202.3	198.6	196.1	193.6	191.7	190.5	188.6	186.8	185.5	184.3	183.1
47.5°	179.8	176.7	174.4	172.4	170.5	169.9	168.7	166.8	165.6	165.6	165.6
50°	159.4	156.9	154.4	153.1	152.5	151.3	150.0	149.4	148.8	148.8	148.8
52.5°	141.4	138.9	136.9	135.8	135.8	134.4	133.2	132.6	132.6	132.6	132.6
55°	124.5	122.6	121.4	120.1	118.9	118.3	118.3	118.3	117.7	117.7	118.3
57.5°	109.6	108.3	106.5	105.2	104.6	104.6	104.0	103.4	104.0	104.6	105.2
60°	95.8	94.6	94.0	92.1	92.1	92.1	91.5	91.5	91.5	92.1	92.7
62.5°	83.4	82.8	81.5	80.9	80.3	80.3	79.7	79.7	79.7	79.7	80.3
65°	72.2	71.0	69.7	69.7	69.7	69.1	69.1	67.9	68.5	68.5	67.9
67.5°	61.7	60.3	59.8	59.2	58.6	58.6	57.8	57.2	56.6	56.6	56.6
70°	51.6	50.4	50.4	49.2	49.2	48.5	47.9	47.9	47.3	46.7	46.0
72.5°	41.7	41.1	40.5	39.8	39.8	39.8	39.2	38.6	38.0	37.4	36.1
75°	33.0	33.0	31.8	31.1	31.1	30.5	29.9	29.3	28.7	28.0	27.4
77.5°	25.6	24.9	23.7	23.1	23.1	23.1	22.5	21.7	21.2	20.6	20.0
80°	18.6	18.0	17.4	16.8	16.8	16.8	16.1	16.1	15.5	15.5	15.5
82.5°	12.4	12.4	11.8	11.8	11.8	11.8	11.2	11.2	11.2	11.2	11.2
85°	7.5	7.5	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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°	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2
2.5°	436.4	436.4	435.1	434.5	433.9	434.5	433.3	432.6	432.0	432.0	431.4
5°	432.6	432.0	429.5	428.9	428.3	427.7	426.4	425.2	424.0	423.3	422.7
7.5°	427.7	425.8	423.3	422.7	422.1	420.2	418.4	417.1	415.3	414.5	413.4
10°	420.8	418.4	416.5	414.5	413.4	411.4	409.6	407.7	405.2	404.6	402.7
12.5°	412.8	409.6	405.8	405.2	403.4	400.9	398.4	396.5	394.7	393.4	391.6
15°	402.7	399.6	395.9	394.0	392.2	390.3	387.2	384.7	382.9	381.0	379.1
17.5°	390.9	387.2	384.1	382.2	381.0	377.9	375.3	372.2	370.5	368.5	366.6
20°	376.7	373.6	369.1	367.2	366.6	364.1	361.0	359.8	357.3	355.4	354.2
22.5°	360.4	357.3	353.6	352.3	349.9	348.6	345.5	344.3	343.0	341.2	340.5
25°	342.4	339.3	336.2	335.6	333.6	332.4	330.5	328.6	328.6	326.8	326.8
27.5°	323.7	320.6	318.1	316.9	316.2	315.0	313.1	312.5	311.9	311.3	311.3
30°	303.8	300.1	298.8	298.2	297.6	296.4	295.6	294.4	295.0	295.6	295.0
32.5°	282.6	281.4	278.9	277.6	278.3	277.6	276.4	277.6	277.0	278.3	278.9
35°	262.1	260.9	259.6	259.6	258.4	258.4	258.4	259.0	260.2	260.9	262.1
37.5°	242.1	240.3	239.7	239.0	239.7	239.7	239.7	240.9	242.1	243.4	245.2
40°	221.0	219.8	219.8	219.8	219.8	221.7	221.0	222.3	223.5	225.4	227.2
42.5°	201.1	201.1	201.7	201.7	201.7	201.7	202.9	204.8	206.6	208.5	210.4
45°	182.4	182.4	182.4	183.7	183.7	184.3	186.8	188.0	189.3	191.1	193.0
47.5°	164.9	164.9	165.6	166.2	166.8	168.1	169.3	171.2	173.0	174.4	176.1
50°	148.8	149.4	150.7	151.9	151.9	152.5	154.4	155.6	156.9	158.7	159.4
52.5°	133.2	134.4	135.8	136.3	136.9	138.1	138.9	140.7	141.4	143.2	143.8
55°	118.9	119.5	121.4	122.0	122.0	123.2	124.5	125.7	127.6	127.6	128.8
57.5°	105.9	106.5	107.7	108.3	107.7	109.6	110.2	111.4	112.1	113.3	113.9
60°	92.7	94.0	94.6	94.6	95.2	95.8	97.2	97.2	98.3	99.5	99.5
62.5°	80.3	80.9	81.5	82.2	82.8	82.2	84.0	84.0	85.3	85.9	87.1
65°	68.5	69.1	69.1	69.7	69.7	70.4	70.4	71.0	71.6	72.8	73.5
67.5°	56.6	56.6	56.6	57.2	56.6	57.2	57.2	57.8	57.8	59.2	59.8
70°	46.0	45.4	44.8	44.8	44.8	44.8	44.2	44.8	44.8	45.4	45.4
72.5°	35.5	34.9	34.3	33.6	33.6	33.0	32.4	33.0	33.0	33.6	33.6
75°	26.8	25.6	25.6	25.6	24.9	24.9	24.9	25.6	25.6	25.6	26.2
77.5°	20.0	20.0	19.2	19.2	19.2	20.0	20.0	20.6	20.6	20.6	20.6
80°	14.9	15.5	15.5	15.5	15.5	16.1	16.1	16.1	16.1	16.8	16.8
82.5°	11.2	11.2	11.2	11.2	11.8	11.8	11.8	11.8	11.8	11.8	11.8
85°	6.8	7.5	7.5	6.8	7.5	7.5	7.5	7.5	7.5	7.5	7.5
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P583592

CATALOG NUMBER: HC807D010-HM80520830-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	438.2	438.2	438.2	438.2	438.2	438.2	438.2	438.2
2.5°	430.8	430.8	430.8	430.8	430.2	430.2	430.2	429.5
5°	421.5	421.5	421.5	420.2	420.8	420.8	419.6	420.2
7.5°	412.2	411.4	410.8	410.8	410.2	409.6	408.9	409.6
10°	401.5	399.6	399.6	399.0	399.0	397.8	397.8	398.4
12.5°	389.7	388.5	388.5	387.8	387.2	386.6	386.0	386.0
15°	377.9	376.7	375.9	375.3	374.8	373.6	374.2	373.6
17.5°	366.0	364.1	364.1	363.5	362.9	361.7	361.7	361.0
20°	352.3	351.7	350.5	351.1	350.5	349.2	348.6	348.6
22.5°	338.7	338.7	338.1	338.1	337.3	336.8	336.2	336.2
25°	325.5	324.9	325.5	325.5	323.7	323.7	323.7	324.3
27.5°	310.6	311.3	310.6	310.6	310.6	310.6	311.3	310.6
30°	295.6	295.6	295.6	296.4	297.6	297.0	297.0	296.4
32.5°	279.5	280.1	280.1	280.7	281.4	282.6	282.6	283.2
35°	263.4	264.6	265.2	264.6	266.5	266.5	267.7	267.7
37.5°	246.5	247.1	248.3	249.0	250.2	250.8	251.5	251.5
40°	228.5	231.0	231.6	232.2	234.1	234.1	234.7	235.9
42.5°	211.6	214.1	214.7	215.3	216.7	218.4	217.8	219.2
45°	195.5	197.3	198.0	198.6	200.4	201.1	201.1	202.9
47.5°	178.1	179.2	179.8	181.2	182.4	183.7	184.9	184.3
50°	160.6	162.5	163.7	164.3	166.2	166.8	167.4	168.1
52.5°	145.1	146.3	146.9	147.6	149.4	150.0	150.7	151.9
55°	130.1	130.7	131.9	131.3	133.2	133.8	134.4	135.8
57.5°	115.2	115.8	116.4	116.4	117.7	118.9	119.5	120.1
60°	100.9	102.1	102.8	102.8	102.8	104.0	104.0	104.0
62.5°	87.8	87.8	88.4	88.4	89.6	89.6	89.6	89.6
65°	74.1	74.7	75.3	75.3	76.6	76.0	77.2	76.6
67.5°	59.8	59.8	61.1	61.1	60.3	61.1	61.1	61.1
70°	45.4	45.4	46.0	46.0	46.0	46.0	46.0	46.0
72.5°	33.6	33.6	33.6	34.3	33.6	33.6	34.3	33.6
75°	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2
77.5°	20.6	20.6	21.2	21.2	21.2	21.2	21.2	21.2
80°	16.8	16.8	16.8	16.8	17.4	16.8	16.8	16.8
82.5°	12.4	11.8	12.4	11.8	12.4	12.4	12.4	12.4
85°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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)