

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: P583694

Luminaire Tested: **HC807D010-HM80520940-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583694
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-HM80520940-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 866.6 lumens
Efficiency: N/A
Efficacy: 108.3 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

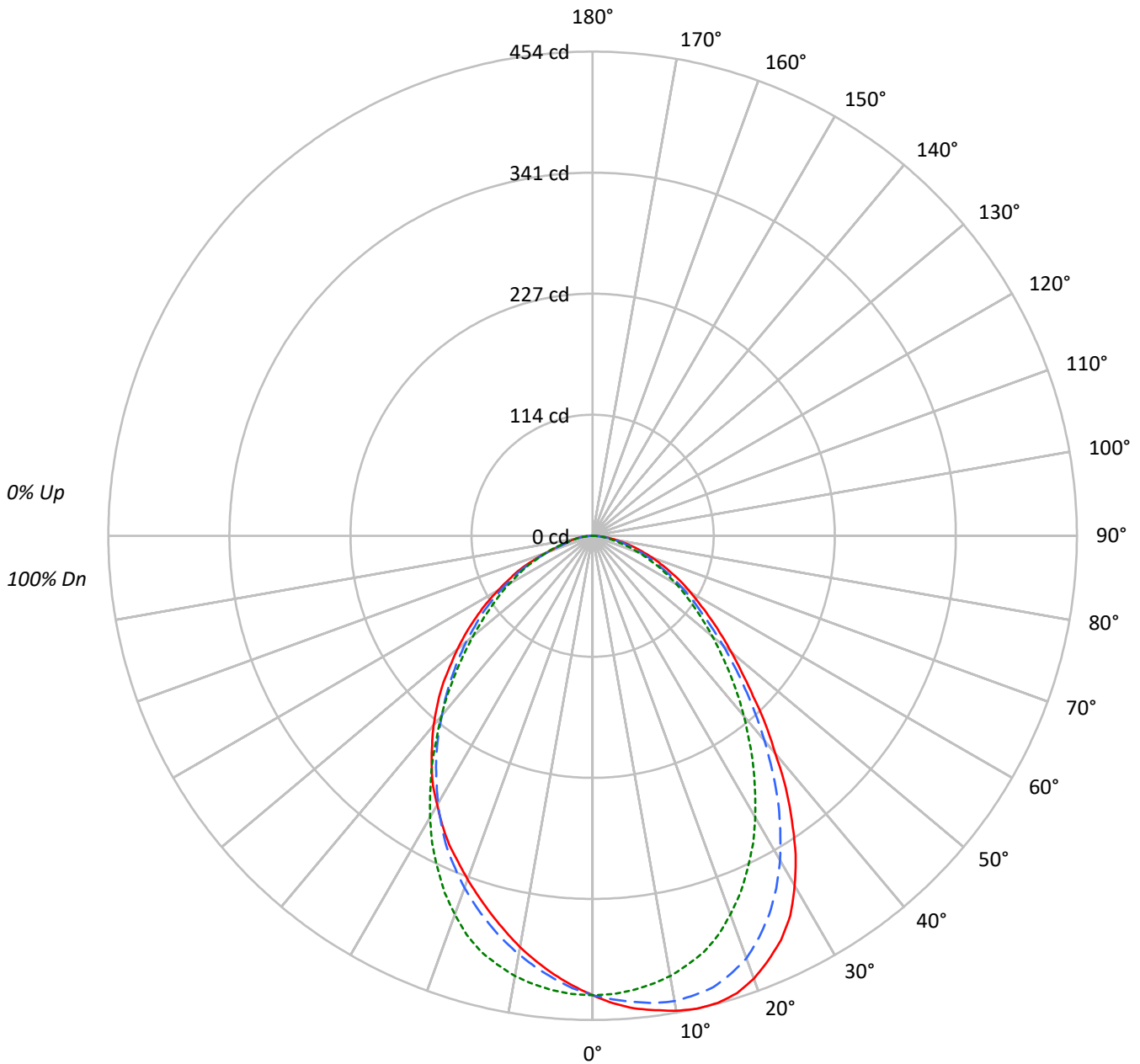
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583694

CATALOG NUMBER: HC807D010-HM80520940-81WWWB

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°	13284	13284	13284
5°	13771	13242	12787
10°	14162	13126	12265
15°	14478	12894	11723
20°	14501	12391	11246
25°	14222	11701	10847
30°	13488	10849	10372
35°	12257	9882	9904
40°	10716	8872	9335
45°	9284	7902	8704
50°	8136	7018	7930
55°	7242	6220	7172
60°	6531	5588	6303
65°	5896	4911	5494
70°	5301	4138	4084
75°	4670	3276	3062
80°	3907	2717	2930
85°	3043	2371	2583



TEST NUMBER: P583694

CATALOG NUMBER: HC807D010-HM80520940-81WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	4.7
10°-20°	114.5	13.2
20°-30°	163.6	18.9
30°-40°	173.8	20.1
40°-50°	149.7	17.3
50°-60°	111.9	12.9
60°-70°	71.4	8.2
70°-80°	32.5	3.7
80°-90°	8.5	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°	318.7	36.8
0°-40°	492.5	56.8
0°-60°	754.2	87.0
0°-90°	866.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	866.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	431	431	431	431	431	
5°	445	439	428	417	413	43
15°	454	438	404	376	367	128
25°	418	392	344	323	319	191
35°	326	303	262	256	263	203
45°	213	201	181	186	200	166
55°	135	124	116	126	133	121
65°	81	72	67	70	75	81
75°	39	34	28	25	26	42
85°	9	7	7	7	7	10
90°	0	0	0	0	0	



TEST NUMBER: P583694

CATALOG NUMBER: HC807D010-HM80520940-81WWWB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8
2.5°	438.8	437.6	438.2	437.6	438.2	438.2	437.0	437.0	437.0	437.0	435.1
5°	444.9	444.3	444.3	443.7	443.1	443.7	443.1	442.5	441.2	440.6	438.8
7.5°	448.6	448.6	448.6	448.6	448.0	447.4	446.8	445.5	444.3	443.1	441.9
10°	452.3	452.9	452.3	451.6	451.0	449.8	449.2	448.0	446.1	444.3	443.1
12.5°	454.1	454.1	453.5	453.5	452.3	451.6	449.8	448.0	446.1	444.3	441.2
15°	453.5	453.5	452.9	452.3	450.4	449.8	448.6	446.8	443.7	441.2	438.2
17.5°	449.8	449.2	448.0	448.0	445.5	444.9	443.7	441.2	438.2	434.5	430.8
20°	441.9	441.9	441.2	440.6	438.2	436.3	435.1	432.1	429.6	425.3	421.7
22.5°	430.8	432.1	430.8	429.6	426.6	425.9	424.1	420.4	416.8	411.9	407.6
25°	418.0	417.4	416.8	415.5	413.1	411.9	409.4	405.7	402.1	396.6	391.7
27.5°	401.5	399.0	399.0	396.6	394.7	392.9	391.7	388.0	383.1	378.8	372.7
30°	378.8	379.4	376.4	375.7	372.7	371.5	369.0	365.3	361.1	356.2	351.3
32.5°	354.3	352.5	352.5	350.0	347.6	345.8	345.1	340.9	337.2	332.3	327.4
35°	325.6	325.6	323.7	323.1	320.7	319.4	317.6	315.1	310.9	306.6	302.9
37.5°	297.4	296.2	295.6	294.3	292.5	290.7	290.7	286.4	285.8	280.9	276.0
40°	266.2	267.4	266.2	264.3	263.7	262.5	261.9	259.4	257.6	253.3	250.4
42.5°	240.0	238.6	238.6	238.0	235.7	235.7	234.3	233.1	230.2	228.8	225.3
45°	212.9	214.1	212.4	212.9	210.6	210.6	210.6	208.0	205.7	203.7	201.4
47.5°	189.8	190.4	190.4	188.5	187.9	187.9	186.7	185.5	183.6	181.2	179.4
50°	169.6	170.2	168.9	168.3	167.1	166.5	166.5	164.0	162.8	160.4	159.2
52.5°	151.2	151.2	150.6	150.6	148.7	148.7	147.5	145.7	144.5	143.2	140.2
55°	134.7	134.7	134.1	133.4	133.4	131.6	131.0	129.2	127.9	125.5	123.6
57.5°	118.8	119.4	118.8	118.1	117.5	116.9	115.7	113.9	112.6	110.8	109.6
60°	105.9	105.9	105.3	104.7	103.4	102.8	102.2	101.0	99.2	97.9	96.1
62.5°	93.7	93.0	92.4	91.8	90.6	90.6	89.4	88.1	86.3	85.1	83.9
65°	80.8	80.8	80.2	80.2	79.6	78.4	77.7	77.1	74.7	74.1	71.6
67.5°	69.2	69.8	68.6	68.6	67.3	67.3	66.7	64.9	64.3	63.0	61.8
70°	58.8	58.8	58.8	58.2	56.9	56.3	55.7	54.5	53.9	52.6	51.4
72.5°	48.4	48.4	47.7	47.7	47.1	46.5	45.9	44.7	44.7	43.5	42.2
75°	39.2	39.2	38.6	38.0	37.3	37.3	36.7	36.1	34.9	34.3	33.7
77.5°	30.0	30.0	30.0	29.4	28.8	28.8	28.8	27.5	26.3	26.3	25.7
80°	22.0	22.0	21.4	21.4	20.8	20.8	20.8	20.2	19.6	19.0	18.4
82.5°	14.7	14.7	14.7	14.7	14.1	14.1	14.1	13.5	12.9	12.9	12.9
85°	8.6	8.6	8.6	8.6	8.0	8.0	8.0	8.0	8.0	7.3	7.3
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



TEST NUMBER: P583694

CATALOG NUMBER: HC807D010-HM80520940-81WWWB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8
2.5°	435.7	435.1	434.5	433.9	433.9	433.3	432.1	431.4	430.8	430.2	430.2
5°	438.2	437.6	436.3	435.1	434.5	433.3	432.1	430.8	429.6	427.8	427.2
7.5°	440.0	438.2	437.0	434.5	433.9	432.7	430.8	429.0	426.6	424.1	422.3
10°	440.0	437.6	435.7	432.7	431.4	430.2	427.8	424.7	421.7	419.2	416.1
12.5°	438.8	435.7	432.7	429.6	427.8	425.9	422.3	419.2	415.5	411.9	409.4
15°	434.5	430.8	427.2	423.5	421.7	419.2	415.5	411.2	407.6	403.9	399.6
17.5°	426.6	422.9	418.6	414.3	411.9	410.0	404.5	401.5	395.9	392.3	388.6
20°	416.1	411.9	406.4	402.1	399.0	397.2	392.9	387.4	383.1	377.6	373.9
22.5°	402.7	397.2	391.7	387.4	384.3	381.9	376.4	370.8	367.2	362.3	358.0
25°	386.8	381.3	375.7	369.6	366.6	364.1	359.2	354.3	349.4	343.9	340.2
27.5°	367.8	361.7	356.8	351.3	348.2	344.5	339.0	334.1	329.2	325.6	320.7
30°	347.0	340.2	335.3	329.8	326.8	323.7	318.2	313.3	309.0	304.7	302.3
32.5°	321.9	317.0	312.1	306.6	304.1	302.3	296.8	291.9	287.0	283.3	281.5
35°	298.0	292.5	288.2	283.3	280.3	278.4	273.5	269.2	266.8	262.5	260.2
37.5°	272.9	268.6	263.7	258.8	257.0	255.3	251.5	247.2	243.5	240.6	239.2
40°	246.6	242.9	238.6	235.7	233.7	231.9	228.8	225.9	223.3	220.4	219.0
42.5°	221.6	219.0	215.5	211.8	210.0	209.2	205.7	203.2	202.0	200.8	199.6
45°	198.8	195.3	192.8	190.4	188.5	187.3	185.5	183.6	182.4	181.2	180.0
47.5°	176.9	173.8	171.4	169.6	167.7	167.1	165.9	164.0	162.8	162.8	162.8
50°	156.7	154.3	151.8	150.6	150.0	148.7	147.5	146.9	146.3	146.3	146.3
52.5°	139.0	136.5	134.7	133.4	133.4	132.2	131.0	130.4	130.4	130.4	130.4
55°	122.4	120.6	119.4	118.1	116.9	116.3	116.3	116.3	115.7	115.7	116.3
57.5°	107.7	106.5	104.7	103.4	102.8	102.8	102.2	101.6	102.2	102.8	103.4
60°	94.3	93.0	92.4	90.6	90.6	90.6	90.0	90.0	90.0	90.6	91.2
62.5°	82.0	81.4	80.2	79.6	79.0	79.0	78.4	78.4	78.4	78.4	79.0
65°	71.0	69.8	68.6	68.6	68.6	67.9	67.9	66.7	67.3	67.3	66.7
67.5°	60.6	59.4	58.8	58.2	57.5	57.5	56.9	56.3	55.7	55.7	55.7
70°	50.8	49.6	49.6	48.4	48.4	47.7	47.1	47.1	46.5	45.9	45.3
72.5°	41.0	40.4	39.8	39.2	39.2	39.2	38.6	38.0	37.3	36.7	35.5
75°	32.4	32.4	31.2	30.6	30.6	30.0	29.4	28.8	28.2	27.5	26.9
77.5°	25.1	24.5	23.3	22.6	22.6	22.6	22.0	21.4	20.8	20.2	19.6
80°	18.4	17.8	17.1	16.5	16.5	16.5	15.9	15.9	15.3	15.3	15.3
82.5°	12.2	12.2	11.6	11.6	11.6	11.6	11.0	11.0	11.0	11.0	11.0
85°	7.3	7.3	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
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: P583694

CATALOG NUMBER: HC807D010-HM80520940-81WWWB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8
2.5°	429.0	429.0	427.8	427.2	426.6	427.2	425.9	425.3	424.7	424.7	424.1
5°	425.3	424.7	422.3	421.7	421.0	420.4	419.2	418.0	416.8	416.1	415.5
7.5°	420.4	418.6	416.1	415.5	414.9	413.1	411.2	410.0	408.2	407.6	406.4
10°	413.7	411.2	409.4	407.6	406.4	404.5	402.7	400.8	398.4	397.8	395.9
12.5°	405.7	402.7	399.0	398.4	396.6	394.1	391.7	389.8	388.0	386.8	384.9
15°	395.9	392.9	389.2	387.4	385.5	383.7	380.6	378.2	376.4	374.5	372.7
17.5°	384.3	380.6	377.6	375.7	374.5	371.5	369.0	366.0	364.1	362.3	360.4
20°	370.2	367.2	362.9	361.1	360.4	358.0	354.9	353.7	351.3	349.4	348.2
22.5°	354.3	351.3	347.6	346.4	343.9	342.7	339.6	338.4	337.2	335.3	334.7
25°	336.6	333.5	330.4	329.8	328.0	326.8	324.9	323.1	323.1	321.3	321.3
27.5°	318.2	315.1	312.7	311.5	310.9	309.6	307.8	307.2	306.6	306.0	306.0
30°	298.6	294.9	293.7	293.1	292.5	291.3	290.7	289.4	290.0	290.7	290.0
32.5°	277.8	276.6	274.1	272.9	273.5	272.9	271.7	272.9	272.3	273.5	274.1
35°	257.6	256.4	255.3	255.3	253.9	253.9	253.9	254.5	255.8	256.4	257.6
37.5°	238.0	236.3	235.7	235.1	235.7	235.7	235.7	236.8	238.0	239.2	241.2
40°	217.3	216.1	216.1	216.1	216.1	217.8	217.3	218.4	219.8	221.6	223.3
42.5°	197.7	197.7	198.3	198.3	198.3	198.3	199.6	201.4	203.2	205.1	206.9
45°	179.4	179.4	179.4	180.6	180.6	181.2	183.6	184.9	186.1	187.9	189.8
47.5°	162.2	162.2	162.8	163.4	164.0	165.3	166.5	168.3	170.2	171.4	173.2
50°	146.3	146.9	148.1	149.4	149.4	150.0	151.8	153.0	154.3	156.1	156.7
52.5°	131.0	132.2	133.4	134.1	134.7	135.9	136.5	138.3	139.0	140.8	141.4
55°	116.9	117.5	119.4	120.0	120.0	121.2	122.4	123.6	125.5	125.5	126.7
57.5°	104.1	104.7	105.9	106.5	105.9	107.7	108.3	109.6	110.2	111.4	112.0
60°	91.2	92.4	93.0	93.0	93.7	94.3	95.5	95.5	96.7	97.9	97.9
62.5°	79.0	79.6	80.2	80.8	81.4	80.8	82.6	82.6	83.9	84.5	85.7
65°	67.3	67.9	67.9	68.6	68.6	69.2	69.2	69.8	70.4	71.6	72.2
67.5°	55.7	55.7	55.7	56.3	55.7	56.3	56.3	56.9	56.9	58.2	58.8
70°	45.3	44.7	44.1	44.1	44.1	44.1	43.5	44.1	44.1	44.7	44.7
72.5°	34.9	34.3	33.7	33.1	33.1	32.4	31.8	32.4	32.4	33.1	33.1
75°	26.3	25.1	25.1	25.1	24.5	24.5	24.5	25.1	25.1	25.1	25.7
77.5°	19.6	19.6	19.0	19.0	19.0	19.6	19.6	20.2	20.2	20.2	20.2
80°	14.7	15.3	15.3	15.3	15.3	15.9	15.9	15.9	15.9	16.5	16.5
82.5°	11.0	11.0	11.0	11.0	11.6	11.6	11.6	11.6	11.6	11.6	11.6
85°	6.7	7.3	7.3	6.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3
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: P583694

CATALOG NUMBER: HC807D010-HM80520940-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	430.8	430.8	430.8	430.8	430.8	430.8	430.8	430.8
2.5°	423.5	423.5	423.5	423.5	422.9	422.9	422.9	422.3
5°	414.3	414.3	414.3	413.1	413.7	413.7	412.5	413.1
7.5°	405.1	404.5	403.9	403.9	403.3	402.7	402.1	402.7
10°	394.7	392.9	392.9	392.3	392.3	391.0	391.0	391.7
12.5°	383.1	381.9	381.9	381.3	380.6	380.0	379.4	379.4
15°	371.5	370.2	369.6	369.0	368.4	367.2	367.8	367.2
17.5°	359.8	358.0	358.0	357.4	356.8	355.5	355.5	354.9
20°	346.4	345.8	344.5	345.1	344.5	343.3	342.7	342.7
22.5°	332.9	332.9	332.3	332.3	331.7	331.1	330.4	330.4
25°	320.0	319.4	320.0	320.0	318.2	318.2	318.2	318.8
27.5°	305.4	306.0	305.4	305.4	305.4	305.4	306.0	305.4
30°	290.7	290.7	290.7	291.3	292.5	291.9	291.9	291.3
32.5°	274.7	275.4	275.4	276.0	276.6	277.8	277.8	278.4
35°	258.8	260.2	260.7	260.2	261.9	261.9	263.1	263.1
37.5°	242.3	242.9	244.1	244.9	246.1	246.6	247.2	247.2
40°	224.7	227.0	227.6	228.2	230.2	230.2	230.8	231.9
42.5°	208.0	210.6	211.2	211.8	212.9	214.9	214.1	215.5
45°	192.2	193.9	194.7	195.3	197.1	197.7	197.7	199.6
47.5°	175.1	176.3	176.9	178.1	179.4	180.6	181.8	181.2
50°	157.9	159.8	161.0	161.6	163.4	164.0	164.7	165.3
52.5°	142.6	143.8	144.5	145.1	146.9	147.5	148.1	149.4
55°	127.9	128.5	129.8	129.2	131.0	131.6	132.2	133.4
57.5°	113.2	113.9	114.5	114.5	115.7	116.9	117.5	118.1
60°	99.2	100.4	101.0	101.0	101.0	102.2	102.2	102.2
62.5°	86.3	86.3	86.9	86.9	88.1	88.1	88.1	88.1
65°	72.8	73.5	74.1	74.1	75.3	74.7	75.9	75.3
67.5°	58.8	58.8	60.0	60.0	59.4	60.0	60.0	60.0
70°	44.7	44.7	45.3	45.3	45.3	45.3	45.3	45.3
72.5°	33.1	33.1	33.1	33.7	33.1	33.1	33.7	33.1
75°	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7
77.5°	20.2	20.2	20.8	20.8	20.8	20.8	20.8	20.8
80°	16.5	16.5	16.5	16.5	17.1	16.5	16.5	16.5
82.5°	12.2	11.6	12.2	11.6	12.2	12.2	12.2	12.2
85°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
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)