

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: P583608

Luminaire Tested: **HC807D010-HM80520835-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583608
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-HM80520835-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 880.7 lumens
Efficiency: N/A
Efficacy: 110.1 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

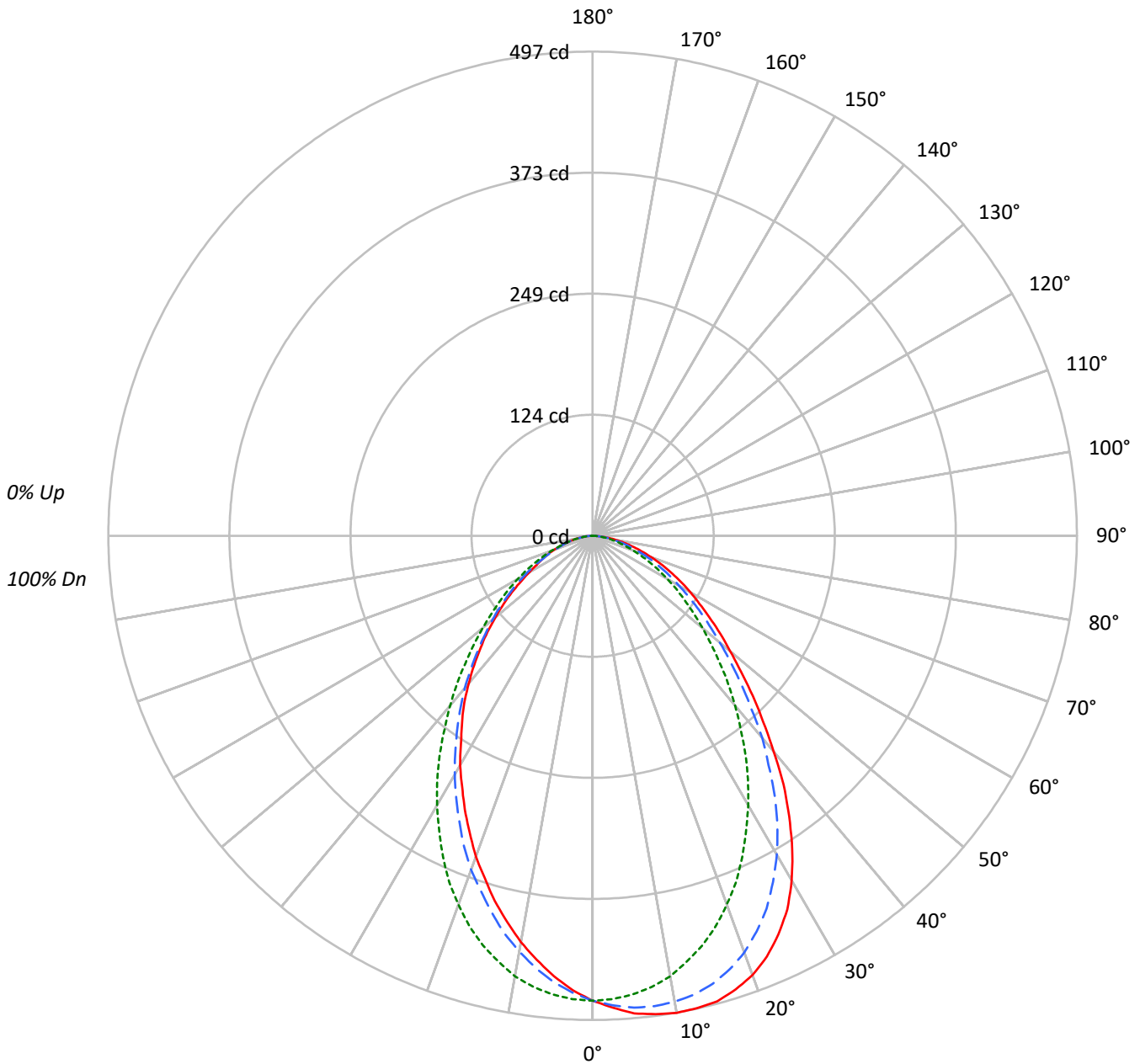
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583608

CATALOG NUMBER: HC807D010-HM80520835-81WWW

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°	14715	14715	14715
5°	15233	14629	14050
10°	15568	14375	13261
15°	15793	13890	12383
20°	15745	13215	11495
25°	15358	12361	10551
30°	14549	11366	9685
35°	13236	10288	8797
40°	11625	9150	7950
45°	10135	8046	7086
50°	8822	7052	6241
55°	7871	6193	5430
60°	7148	5433	4638
65°	6428	4728	4203
70°	5725	4030	3796
75°	5016	3384	3241
80°	4244	2752	2859
85°	3220	2087	2300



TEST NUMBER: P583608

CATALOG NUMBER: HC807D010-HM80520835-81WWW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.7	5.1
10°-20°	123.2	14.0
20°-30°	170.9	19.4
30°-40°	176.7	20.1
40°-50°	148.0	16.8
50°-60°	107.4	12.2
60°-70°	67.8	7.7
70°-80°	33.6	3.8
80°-90°	8.4	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°	338.8	38.5
0°-40°	515.5	58.5
0°-60°	771.0	87.5
0°-90°	880.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	880.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	477	477	477	477	477	
5°	492	486	473	460	454	47
15°	495	476	435	400	388	139
25°	451	422	363	324	310	207
35°	352	326	273	242	234	219
45°	232	216	184	166	162	180
55°	146	133	115	106	101	132
65°	88	77	65	57	58	88
75°	42	35	28	27	27	45
85°	9	7	6	6	6	11
90°	0	0	0	0	0	



TEST NUMBER: P583608

CATALOG NUMBER: HC807D010-HM80520835-81WWW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2
2.5°	484.9	484.9	485.6	484.9	484.9	484.9	484.3	484.3	483.7	483.7	482.4
5°	492.1	490.8	492.1	490.8	490.8	490.8	490.2	488.9	488.2	487.0	486.2
7.5°	495.3	494.7	494.7	494.0	494.0	493.4	492.7	492.1	489.5	488.9	487.0
10°	497.2	496.6	496.6	495.9	494.7	494.7	493.4	492.7	489.5	488.2	485.6
12.5°	496.6	496.6	496.6	495.9	494.0	493.4	492.1	490.2	487.6	484.9	482.4
15°	494.7	494.7	493.4	492.7	490.8	489.5	488.9	485.6	483.0	479.8	476.0
17.5°	488.2	488.2	487.6	486.2	484.3	483.0	481.7	478.5	476.0	470.7	466.9
20°	479.8	479.2	478.5	476.6	474.7	473.9	472.0	467.5	464.3	460.3	455.2
22.5°	467.5	466.9	466.2	464.9	461.6	460.3	459.1	455.9	450.0	446.1	439.6
25°	451.4	451.4	450.0	448.1	444.8	443.6	441.6	438.3	433.2	427.3	422.2
27.5°	432.5	431.9	430.0	428.6	426.0	424.1	420.9	416.9	411.8	407.3	400.8
30°	408.6	408.6	407.3	405.3	402.1	400.8	398.2	393.6	388.5	382.6	378.1
32.5°	381.3	381.3	379.4	378.1	376.2	373.0	372.4	367.1	362.6	358.0	352.9
35°	351.6	352.3	351.0	348.3	345.1	345.1	343.8	339.3	334.1	329.6	325.6
37.5°	321.8	319.9	319.2	317.9	316.0	313.3	312.1	310.1	305.6	302.3	296.6
40°	288.8	289.4	288.1	286.8	286.2	284.3	283.6	280.3	277.1	273.3	270.7
42.5°	259.0	259.0	259.0	257.8	256.4	254.4	253.8	251.9	248.0	245.5	241.5
45°	232.4	230.5	230.5	229.9	229.2	227.9	226.0	224.7	222.2	220.1	215.6
47.5°	206.5	207.2	206.5	205.9	204.0	203.3	202.7	200.0	197.5	195.5	192.3
50°	183.9	185.2	183.9	183.9	182.6	182.0	180.7	178.7	176.7	173.5	170.3
52.5°	165.1	165.1	164.4	163.8	161.9	160.6	159.9	159.3	156.1	153.4	150.8
55°	146.4	147.0	147.0	145.1	144.4	143.0	142.4	140.5	139.2	135.3	133.4
57.5°	130.1	129.5	130.1	128.8	127.5	126.3	125.6	124.3	122.4	119.7	117.2
60°	115.9	114.6	114.6	114.0	112.7	112.0	110.8	108.7	106.8	104.2	102.3
62.5°	101.7	101.0	100.4	99.7	98.5	97.8	97.2	95.2	93.2	91.3	89.4
65°	88.1	88.1	87.4	86.2	85.4	84.8	84.1	82.9	80.3	79.0	77.1
67.5°	75.8	75.2	75.2	73.9	72.5	71.8	71.8	70.6	68.6	66.7	65.4
70°	63.5	64.1	63.5	62.9	61.5	61.5	60.2	59.5	57.0	56.3	54.4
72.5°	52.5	52.5	51.7	51.7	50.5	49.8	49.8	48.5	47.3	46.0	44.7
75°	42.1	42.1	42.1	41.5	40.7	39.6	39.6	38.8	37.5	36.2	35.0
77.5°	33.0	32.4	32.4	31.8	31.1	30.5	30.5	29.8	28.4	27.8	26.5
80°	23.9	23.3	23.3	23.3	22.0	22.7	22.0	21.4	20.7	20.1	19.5
82.5°	15.5	16.1	16.1	15.5	14.9	14.9	14.9	14.2	14.2	13.6	12.9
85°	9.1	9.1	9.1	9.1	8.4	8.4	8.4	7.8	7.8	7.8	7.2
87.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.2	3.2	3.2	3.2	3.2
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: P583608

CATALOG NUMBER: HC807D010-HM80520835-81WWW

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2
2.5°	482.4	481.1	480.4	479.8	479.8	479.2	478.5	477.2	477.2	476.0	475.3
5°	484.9	483.0	481.7	480.4	479.8	478.5	477.2	475.3	474.7	472.6	470.7
7.5°	485.6	482.4	481.1	478.5	477.2	476.0	473.3	471.4	468.8	466.9	464.3
10°	483.0	480.4	477.2	473.9	473.3	471.4	467.5	464.9	461.6	459.1	455.2
12.5°	479.2	475.3	472.0	468.1	466.2	464.3	460.3	456.5	451.9	447.4	443.6
15°	472.6	468.1	463.7	459.1	456.5	454.6	450.0	445.5	441.0	435.1	431.3
17.5°	462.9	457.8	453.3	447.4	444.8	442.9	437.0	431.9	426.0	420.3	416.3
20°	450.6	444.2	439.0	432.5	430.6	427.3	421.5	415.7	409.2	402.7	398.2
22.5°	434.5	428.0	422.2	415.7	412.5	409.2	403.4	396.3	389.8	384.7	380.1
25°	415.7	409.9	402.7	396.9	393.0	389.1	382.6	376.8	371.0	363.3	358.7
27.5°	394.9	387.9	382.6	374.9	371.0	368.4	361.2	353.5	348.3	341.2	336.0
30°	371.6	365.2	359.3	351.6	347.7	345.1	338.7	331.5	326.4	319.2	314.0
32.5°	347.0	340.0	332.8	327.7	323.1	320.5	313.3	308.9	302.3	296.6	290.7
35°	320.5	313.3	308.2	301.1	298.5	295.9	290.0	284.3	278.4	273.3	268.8
37.5°	292.1	286.8	281.1	275.8	273.9	271.3	264.2	259.0	254.4	249.3	245.5
40°	264.2	259.7	255.7	250.6	247.4	245.5	240.2	235.7	230.5	227.3	223.3
42.5°	238.9	233.7	229.9	226.0	222.7	220.8	216.3	213.1	209.1	205.9	201.4
45°	212.4	209.8	205.3	202.1	200.0	197.5	194.3	190.4	187.1	184.5	181.3
47.5°	189.0	186.4	183.2	179.4	178.1	176.1	172.9	170.3	167.7	165.1	161.9
50°	167.7	164.4	161.9	159.3	158.0	156.1	152.8	151.5	149.6	147.0	145.1
52.5°	148.3	145.7	143.0	139.8	139.2	137.9	136.0	133.4	131.5	130.1	128.8
55°	130.9	128.2	126.3	123.7	123.0	121.8	119.1	117.8	116.5	115.2	114.0
57.5°	115.2	112.7	110.1	108.7	107.4	106.2	105.5	103.6	102.3	101.7	100.4
60°	101.0	98.5	96.4	94.5	93.9	93.2	91.9	90.7	89.4	88.1	87.4
62.5°	87.4	84.8	83.5	82.2	80.9	80.9	79.6	78.4	77.1	76.4	75.2
65°	75.2	73.9	71.8	69.9	69.3	69.3	67.4	66.7	66.1	64.8	63.5
67.5°	63.5	62.1	60.2	59.5	58.9	58.3	57.6	56.3	55.1	54.4	53.1
70°	53.1	51.7	50.5	49.8	49.2	48.5	47.3	46.6	45.3	44.7	44.0
72.5°	42.8	42.1	40.7	40.2	39.6	38.8	38.2	37.5	36.2	35.6	35.0
75°	34.3	33.7	32.4	31.8	31.1	31.1	30.5	29.2	28.4	28.4	27.8
77.5°	25.9	25.2	24.6	23.9	23.3	23.3	22.7	22.0	21.4	21.4	20.7
80°	18.8	18.2	17.4	17.4	17.4	16.8	16.1	16.1	15.5	15.5	14.9
82.5°	12.3	12.3	11.7	11.7	11.7	11.0	11.0	10.4	10.4	10.4	10.4
85°	7.2	7.2	7.2	6.5	6.5	6.5	6.5	6.5	6.5	5.9	6.5
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.6	2.6	2.6
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: P583608

CATALOG NUMBER: HC807D010-HM80520835-81WWW

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2
2.5°	474.7	473.9	472.6	472.6	471.4	471.4	470.7	470.1	469.4	468.8	468.1
5°	470.1	467.5	466.2	465.6	464.3	463.7	461.6	460.3	459.7	458.4	457.1
7.5°	461.6	459.1	456.5	455.9	455.2	452.5	450.6	448.7	447.4	446.1	444.8
10°	451.9	449.3	446.1	444.8	443.6	440.4	437.7	435.8	433.2	430.6	430.0
12.5°	440.4	436.4	432.5	431.3	429.2	426.0	423.5	420.3	418.2	415.0	414.4
15°	426.7	422.2	419.0	415.7	414.4	411.2	406.7	404.0	400.2	398.9	395.7
17.5°	410.5	405.9	401.4	400.2	398.2	393.6	389.1	385.9	382.0	380.1	378.1
20°	393.6	387.9	383.4	382.0	379.4	375.6	371.0	367.8	364.6	360.7	358.7
22.5°	374.3	367.8	363.9	360.7	360.1	355.5	350.3	347.7	345.1	341.9	339.3
25°	352.9	347.0	342.5	340.0	338.7	334.7	330.9	327.7	323.7	321.8	318.6
27.5°	330.9	327.0	321.2	318.6	316.7	313.3	308.9	306.9	303.1	300.4	298.5
30°	309.5	303.6	300.4	297.2	295.3	292.1	288.1	286.2	283.0	280.3	278.4
32.5°	286.2	282.3	277.7	276.5	273.9	270.7	268.0	264.8	262.2	259.7	259.0
35°	264.8	259.7	255.1	253.8	251.9	248.7	247.4	245.5	242.1	241.5	238.9
37.5°	241.5	238.9	233.7	231.8	231.1	228.6	226.0	224.7	222.7	220.8	220.1
40°	219.5	216.3	213.7	211.8	210.4	208.5	205.9	205.3	204.0	201.4	200.8
42.5°	198.7	195.5	193.0	192.3	190.4	188.5	187.1	185.2	184.5	183.9	182.6
45°	178.7	176.7	174.2	173.5	172.9	170.3	169.0	167.7	166.5	165.7	164.4
47.5°	160.6	158.7	156.7	156.1	154.8	154.2	152.1	151.5	149.6	148.9	148.3
50°	143.0	141.8	140.5	139.8	138.6	137.9	136.6	135.3	134.1	133.4	132.8
52.5°	127.5	126.3	125.0	124.3	123.7	122.4	121.1	119.7	119.1	118.5	117.8
55°	112.7	111.4	110.8	110.1	109.5	108.7	106.8	106.2	105.5	104.9	103.6
57.5°	99.1	97.8	96.4	96.4	95.8	95.2	93.9	92.6	92.6	91.3	90.0
60°	86.8	85.4	84.1	83.5	82.9	81.6	80.9	80.3	79.6	79.0	77.7
62.5°	73.9	73.1	71.8	71.8	70.6	69.9	69.3	68.6	68.0	66.7	66.1
65°	62.9	62.1	60.8	60.2	60.2	59.5	58.3	57.6	57.0	57.0	56.3
67.5°	52.5	51.7	50.5	49.8	49.8	49.2	48.5	48.5	47.9	47.3	47.9
70°	43.4	42.1	42.1	41.5	41.5	40.7	40.2	40.2	40.2	40.7	40.7
72.5°	34.3	33.7	33.0	33.0	33.0	33.0	32.4	32.4	33.0	33.7	33.7
75°	27.2	26.5	26.5	26.5	25.9	25.9	26.5	26.5	27.2	27.2	27.2
77.5°	20.1	20.1	20.1	20.1	20.1	20.1	20.7	20.7	21.4	21.4	21.4
80°	14.9	14.9	14.9	14.9	14.9	15.5	15.5	15.5	15.5	15.5	16.1
82.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	11.0	11.0	11.0	11.0
85°	5.9	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P583608

CATALOG NUMBER: HC807D010-HM80520835-81WWW

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2
2.5°	467.5	467.5	467.5	468.1	466.9	466.9	466.9	466.9
5°	456.5	455.9	455.2	455.9	454.6	454.6	453.9	453.9
7.5°	442.9	442.3	441.6	441.6	440.4	440.4	439.6	439.0
10°	428.0	426.7	427.3	426.0	425.4	424.7	424.1	423.5
12.5°	411.8	410.5	409.9	408.6	407.3	406.7	407.3	405.9
15°	394.4	392.4	391.7	390.4	389.1	388.5	388.5	387.9
17.5°	374.9	373.6	373.0	371.6	371.0	369.7	369.0	368.4
20°	356.8	353.5	354.2	352.9	352.3	349.7	349.7	350.3
22.5°	336.8	334.7	333.4	332.2	331.5	330.2	330.2	329.6
25°	316.7	314.6	314.0	312.7	312.1	310.8	310.1	310.1
27.5°	297.2	294.6	294.6	293.4	292.1	291.3	290.7	290.0
30°	276.5	274.5	273.9	273.9	273.3	273.3	271.3	272.0
32.5°	257.0	255.7	255.1	253.8	253.8	253.2	253.2	251.2
35°	237.7	235.7	236.4	235.1	234.3	233.7	234.3	233.7
37.5°	218.8	217.6	217.6	216.3	216.3	215.6	215.0	216.3
40°	200.0	199.4	198.7	198.1	198.7	198.1	196.8	197.5
42.5°	181.3	181.3	180.7	180.7	180.0	180.0	180.0	180.0
45°	164.4	163.8	163.8	163.1	163.1	163.1	163.1	162.5
47.5°	147.6	147.0	147.0	147.0	146.4	146.4	145.7	146.4
50°	131.5	131.5	130.9	130.9	131.5	130.9	130.1	130.1
52.5°	116.5	116.5	115.9	115.9	115.2	114.6	115.2	115.2
55°	103.0	102.3	101.7	101.7	101.0	100.4	100.4	101.0
57.5°	90.0	89.4	88.7	88.7	87.4	86.8	86.8	86.8
60°	77.7	76.4	76.4	75.8	75.8	75.2	75.2	75.2
62.5°	66.1	65.4	65.4	65.4	65.4	64.8	64.8	64.8
65°	56.3	56.3	56.3	57.0	57.0	57.6	57.6	57.6
67.5°	48.5	49.2	49.2	49.2	49.8	49.8	49.8	49.2
70°	41.5	41.5	41.5	42.1	42.1	42.1	42.1	42.1
72.5°	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
75°	27.2	27.8	27.8	27.8	27.2	27.8	27.8	27.2
77.5°	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
80°	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
82.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
85°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)