

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: P583675

Luminaire Tested: **HC807D010-HM80520935-81WWBB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583675
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520935-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 740.5 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.07 / 1.16
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

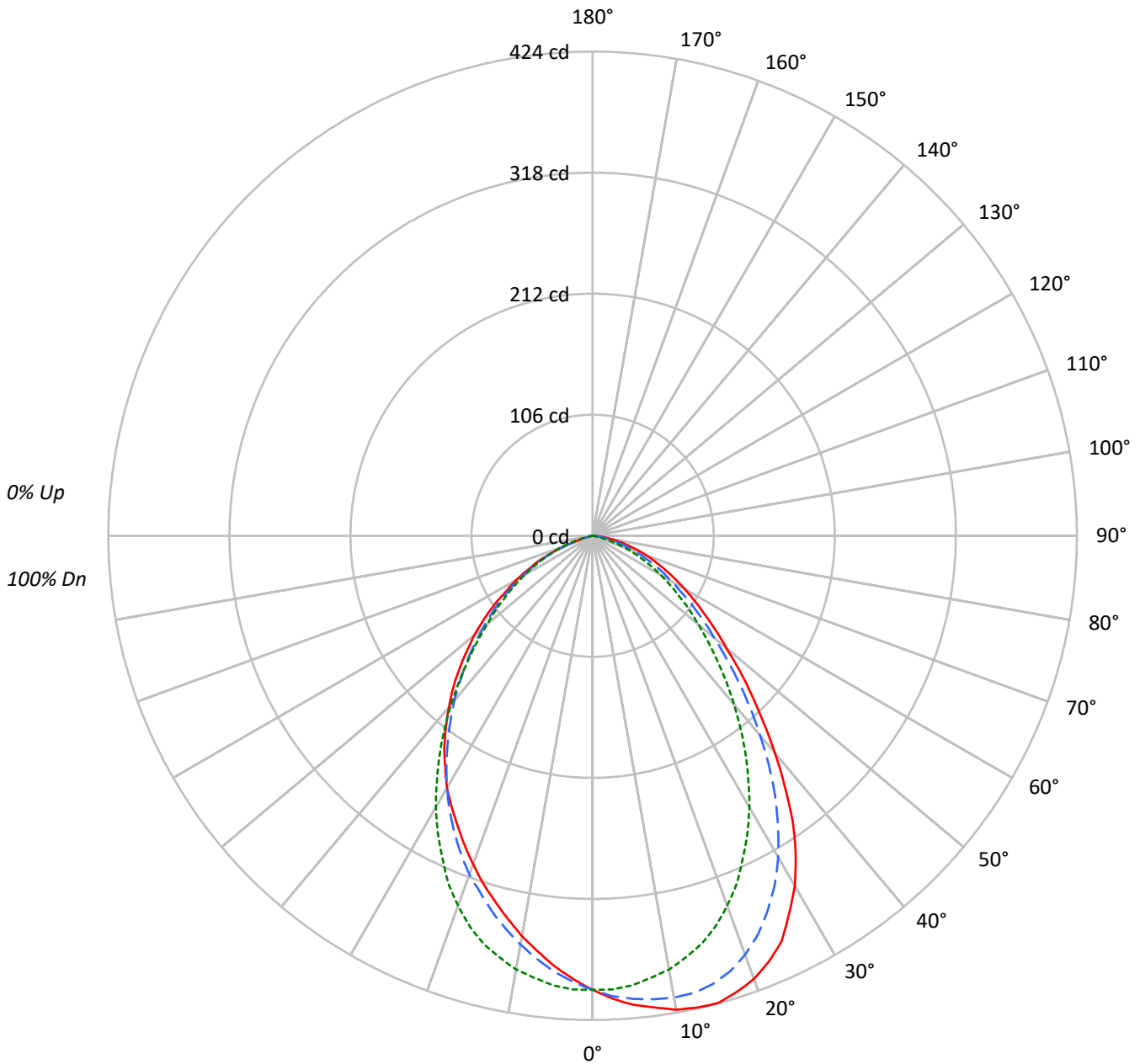
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583675

CATALOG NUMBER: HC807D010-HM80520935-81WWBB

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	63	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	47																			
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43																			
8	66	54	46	41	65	53	46	41	52	46	41	51	45	41	50	44	40	39																			
9	62	50	43	37	61	50	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12261	12261	12261
5°	12765	12233	11719
10°	13195	12074	11147
15°	13526	11799	10567
20°	13553	11308	10041
25°	13324	10595	9523
30°	12612	9774	9076
35°	11497	8790	8526
40°	9999	7749	7870
45°	8578	6711	7200
50°	7325	5786	6472
55°	6424	4984	5623
60°	5717	4255	4724
65°	5071	3473	3772
70°	4508	2579	2146
75°	3753	1334	643
80°	2948	426	107
85°	2123	212	0



TEST NUMBER: P583675

CATALOG NUMBER: HC807D010-HM80520935-81WWBB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.5	5.1
10°-20°	105.0	14.2
20°-30°	148.6	20.1
30°-40°	155.5	21.0
40°-50°	129.7	17.5
50°-60°	92.0	12.4
60°-70°	53.0	7.2
70°-80°	17.1	2.3
80°-90°	2.4	0.3
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°	291.1	39.3
0°-40°	446.5	60.3
0°-60°	668.2	90.2
0°-90°	740.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	740.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	398	398	398	398	398	
5°	412	407	395	383	379	40
15°	424	406	370	340	331	119
25°	392	362	311	286	280	179
35°	305	279	234	221	226	189
45°	197	181	154	156	165	152
55°	120	107	93	98	105	108
65°	70	58	48	48	52	69
75°	32	23	11	5	5	34
85°	6	3	1	0	0	7
90°	0	0	0	0	0	



TEST NUMBER: P583675

CATALOG NUMBER: HC807D010-HM80520935-81WWBB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6
2.5°	405.8	405.2	404.6	405.2	404.6	405.2	404.6	404.6	404.1	403.6	403.6
5°	412.4	411.8	411.8	411.8	411.2	410.6	410.6	410.0	408.8	408.2	407.0
7.5°	416.6	417.2	417.2	417.2	416.0	416.0	414.8	413.6	412.4	411.2	409.4
10°	421.4	421.4	420.8	420.2	419.0	418.4	417.8	416.6	414.8	412.4	410.6
12.5°	423.1	423.1	422.6	421.4	420.8	420.2	419.6	417.8	415.4	412.4	410.0
15°	423.7	422.6	422.0	421.4	420.2	418.4	418.4	416.0	413.0	409.4	406.4
17.5°	419.0	419.6	418.4	417.2	415.4	414.2	412.4	410.6	407.0	403.0	400.0
20°	413.0	412.4	411.8	410.0	407.6	407.0	405.2	402.4	399.4	394.6	390.4
22.5°	403.6	403.0	401.8	400.6	398.2	397.0	395.2	391.6	387.4	382.6	378.0
25°	391.6	390.4	388.6	386.2	384.4	383.2	381.0	377.4	372.6	367.2	362.4
27.5°	372.6	374.4	373.2	369.6	367.8	365.4	364.8	360.2	356.0	350.6	345.2
30°	354.2	354.2	352.4	350.6	347.6	345.8	343.4	339.9	335.8	329.2	325.0
32.5°	331.0	330.4	328.0	327.4	325.0	321.5	320.9	316.2	312.0	307.2	301.9
35°	305.4	304.2	301.9	300.1	298.9	297.1	295.3	291.2	287.0	282.3	278.7
37.5°	276.3	276.3	275.7	272.8	271.6	270.4	268.6	264.5	262.1	257.3	253.7
40°	248.4	247.8	246.1	245.5	244.3	242.5	241.3	238.9	235.3	231.7	228.2
42.5°	221.1	221.7	219.3	219.9	217.5	216.3	215.7	212.1	210.3	206.9	203.9
45°	196.7	196.1	194.9	194.3	193.1	191.9	190.7	188.9	185.9	182.5	180.7
47.5°	174.1	172.3	172.3	171.7	171.1	168.7	168.1	166.3	164.6	161.1	158.7
50°	152.7	152.7	152.7	152.1	150.3	149.7	148.5	146.7	145.0	142.6	139.1
52.5°	135.5	135.5	135.5	134.9	132.5	131.9	131.3	128.9	126.6	124.8	122.4
55°	119.5	120.1	119.5	118.3	116.5	116.5	114.7	113.5	111.1	109.3	107.0
57.5°	105.8	105.8	104.6	104.0	102.8	102.2	101.0	99.8	96.9	95.1	92.1
60°	92.7	92.1	92.1	90.9	89.7	88.5	88.0	86.2	85.0	82.0	79.6
62.5°	80.8	80.8	79.6	79.6	77.2	77.2	76.6	74.9	73.1	70.1	69.0
65°	69.5	69.5	69.0	68.4	66.6	66.0	65.4	63.6	61.8	60.0	58.2
67.5°	59.4	59.4	58.2	57.6	56.4	55.8	54.6	53.5	51.7	50.0	48.2
70°	50.0	49.4	48.8	48.2	47.0	46.4	45.2	44.0	42.2	41.0	39.2
72.5°	40.4	40.4	39.8	38.6	38.0	37.4	36.8	35.6	33.8	32.1	31.0
75°	31.5	31.5	31.5	30.4	29.2	28.6	28.6	27.4	26.2	24.4	23.2
77.5°	24.4	23.8	23.2	23.2	22.0	21.4	20.8	20.2	18.4	17.8	16.6
80°	16.6	17.2	16.6	16.0	15.4	14.8	14.8	13.6	13.0	11.8	10.8
82.5°	11.2	10.8	10.8	10.2	10.2	9.6	9.6	8.4	7.8	7.2	6.6
85°	6.0	6.0	5.4	5.4	5.4	4.8	4.8	4.2	4.2	3.6	3.0
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2
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: P583675

CATALOG NUMBER: HC807D010-HM80520935-81WWBB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6
2.5°	403.0	401.8	401.2	401.2	400.6	400.0	399.4	398.8	397.6	397.6	396.4
5°	405.8	404.6	404.1	402.4	401.2	401.2	398.8	398.2	396.4	395.2	394.0
7.5°	408.2	405.8	404.1	402.4	401.2	400.0	397.6	395.2	392.8	390.4	389.2
10°	408.2	405.8	403.0	400.0	398.8	397.6	394.6	391.0	388.0	385.6	382.6
12.5°	407.0	403.6	400.0	397.6	395.2	393.4	389.8	386.2	382.6	378.0	375.6
15°	403.6	398.8	395.2	391.0	389.2	386.2	383.2	378.0	373.8	369.6	366.6
17.5°	396.4	390.4	386.2	382.2	379.2	377.4	372.6	367.8	363.0	358.4	354.8
20°	385.6	380.4	375.6	370.2	367.8	365.4	359.6	354.8	350.0	344.6	341.1
22.5°	372.6	367.2	360.7	356.6	353.0	350.0	344.6	339.3	334.6	329.8	325.0
25°	356.6	351.2	345.2	338.7	336.4	333.4	327.4	322.1	316.8	311.4	307.2
27.5°	339.3	332.2	327.4	320.3	317.9	315.0	308.4	302.5	297.7	293.6	288.8
30°	318.5	313.2	306.6	300.1	297.7	294.8	289.4	284.1	279.3	274.5	269.8
32.5°	295.9	290.6	284.1	279.3	275.7	273.3	268.0	263.3	258.5	253.7	249.6
35°	272.2	266.2	261.5	256.7	253.7	250.8	245.5	241.3	237.7	233.5	229.4
37.5°	247.8	243.7	238.9	233.5	230.5	228.2	224.1	219.3	216.3	212.7	209.7
40°	224.1	219.3	215.1	210.3	207.9	206.3	202.1	198.5	195.5	192.5	190.7
42.5°	199.7	195.5	191.3	188.3	186.5	184.9	181.9	177.7	175.9	172.9	171.1
45°	177.1	173.5	170.5	166.3	165.1	164.0	160.5	157.5	155.7	153.9	152.7
47.5°	155.7	153.3	149.7	147.3	145.6	144.4	142.0	139.7	137.9	136.7	135.5
50°	137.3	134.3	131.9	129.5	128.3	126.6	124.2	123.0	121.8	120.6	120.6
52.5°	120.1	117.1	114.7	112.9	111.7	110.5	108.7	108.1	107.0	107.0	106.4
55°	104.0	102.2	99.8	97.5	96.9	96.3	95.1	93.9	93.3	92.7	93.3
57.5°	90.3	88.5	86.2	84.4	83.8	83.2	82.6	81.4	80.8	80.8	80.8
60°	77.8	76.1	74.3	72.5	72.5	71.3	70.7	70.1	69.5	69.0	69.0
62.5°	66.6	64.8	63.0	61.8	61.2	60.6	59.4	58.8	58.2	58.2	57.6
65°	56.4	54.1	53.5	51.7	51.1	50.5	50.0	48.8	48.2	47.6	47.0
67.5°	46.4	45.2	43.4	42.2	41.6	41.0	40.4	39.2	38.6	38.0	36.8
70°	37.4	36.2	35.0	33.8	33.2	32.7	31.5	30.4	29.8	28.6	26.8
72.5°	29.2	28.0	26.8	25.6	25.0	24.4	23.2	22.0	20.8	19.6	18.4
75°	22.0	20.8	19.0	17.8	17.2	17.2	15.4	14.2	13.0	11.2	10.2
77.5°	15.4	13.6	13.0	11.8	11.2	10.2	9.0	7.8	6.6	6.0	4.8
80°	10.2	9.0	7.8	7.2	6.6	6.0	5.4	4.2	3.0	2.4	1.8
82.5°	6.0	5.4	4.8	4.2	3.6	3.0	2.4	2.4	1.8	1.2	0.6
85°	3.0	2.4	1.8	1.8	1.2	1.2	1.2	0.6	0.6	0.6	0.6
87.5°	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0
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: P583675

CATALOG NUMBER: HC807D010-HM80520935-81WWBB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6
2.5°	395.8	395.2	394.6	394.0	394.0	392.8	392.8	392.2	391.0	390.4	390.4
5°	392.2	390.4	389.2	388.6	388.0	386.2	385.6	384.4	383.2	382.2	381.6
7.5°	386.8	383.8	382.6	382.2	380.4	378.6	377.4	375.6	373.8	372.0	371.4
10°	380.4	377.4	374.4	373.2	371.4	370.2	367.8	365.4	363.6	361.8	360.2
12.5°	372.0	368.4	365.4	364.2	362.4	360.2	356.6	355.4	352.4	351.2	348.8
15°	362.4	358.4	355.4	353.6	351.8	348.2	345.8	343.4	340.5	339.3	337.0
17.5°	350.6	345.8	342.8	341.1	339.9	337.0	333.4	330.4	327.4	326.2	324.4
20°	336.4	333.4	329.2	327.4	326.2	322.7	319.1	317.9	315.6	313.2	311.4
22.5°	320.3	317.3	313.2	311.4	310.8	307.8	304.8	303.1	301.3	299.5	297.7
25°	303.6	300.1	296.5	295.3	294.2	291.8	289.4	288.2	286.4	285.2	284.1
27.5°	285.8	282.3	279.3	277.5	276.3	274.5	273.3	272.2	271.0	269.8	269.2
30°	266.8	263.3	260.9	259.7	258.5	257.9	256.1	255.5	254.9	253.7	254.3
32.5°	247.8	244.9	242.5	240.7	240.7	239.5	238.9	238.9	238.3	238.3	238.3
35°	227.0	225.3	223.5	222.9	222.3	221.7	221.1	221.7	221.1	221.7	222.3
37.5°	207.9	206.3	205.1	204.5	203.9	204.5	203.9	203.9	204.5	205.7	206.3
40°	188.3	187.1	185.9	186.5	185.9	185.9	185.9	187.7	188.3	188.9	189.5
42.5°	169.9	168.7	168.1	168.1	168.7	168.1	169.3	169.9	171.1	172.9	174.1
45°	152.1	151.5	151.5	152.1	151.5	152.7	152.7	153.9	155.7	156.9	158.1
47.5°	135.5	135.5	135.5	136.1	136.1	136.7	137.9	138.5	139.7	140.9	142.0
50°	120.1	120.6	121.2	121.2	121.2	122.4	123.6	124.2	124.8	125.4	127.1
52.5°	106.4	107.0	107.0	107.6	108.1	108.7	109.3	110.5	111.1	112.3	112.9
55°	93.3	93.3	94.5	95.1	95.1	95.1	96.3	96.3	97.5	98.1	99.2
57.5°	80.8	81.4	81.4	82.0	82.0	82.6	83.2	83.8	84.4	85.0	85.6
60°	69.0	69.0	69.0	69.5	70.1	70.7	70.1	71.3	71.3	72.5	73.1
62.5°	57.6	58.2	58.2	58.2	58.2	58.2	58.2	58.8	59.4	60.0	60.6
65°	47.0	47.0	47.0	46.4	47.0	46.4	47.0	47.6	47.6	48.2	48.8
67.5°	36.2	36.2	35.0	35.0	35.6	35.6	35.6	35.6	35.0	36.2	36.2
70°	26.2	25.6	25.0	24.4	24.4	23.8	23.8	23.2	23.2	23.2	23.2
72.5°	17.2	16.0	14.8	14.2	13.6	13.6	12.4	11.8	12.4	12.4	12.4
75°	9.0	7.8	7.2	6.6	6.0	6.0	5.4	5.4	5.4	5.4	5.4
77.5°	3.6	3.0	2.4	2.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8
80°	1.2	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.0	0.0	0.6	0.0	0.6	0.6	0.6	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P583675

CATALOG NUMBER: HC807D010-HM80520935-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	397.6	397.6	397.6	397.6	397.6	397.6	397.6	397.6
2.5°	389.8	389.8	389.2	389.8	388.6	389.2	388.6	388.6
5°	381.0	379.8	379.8	379.8	379.2	379.2	378.6	378.6
7.5°	370.2	369.6	369.0	368.4	367.8	367.2	367.2	367.2
10°	359.6	358.4	358.4	357.8	356.6	356.0	356.0	356.0
12.5°	347.0	346.4	345.8	345.8	343.4	344.0	343.4	343.4
15°	335.2	334.6	334.6	332.8	331.6	331.6	331.6	331.0
17.5°	322.7	322.1	321.5	320.3	319.1	319.1	318.5	319.1
20°	309.6	309.0	307.8	307.8	307.2	306.6	305.4	306.0
22.5°	296.5	295.3	294.8	294.8	294.2	294.2	293.0	293.0
25°	282.9	282.3	281.7	282.3	281.1	281.1	279.9	279.9
27.5°	268.6	268.0	268.0	268.0	267.4	268.0	267.4	267.4
30°	254.3	254.3	253.7	253.7	254.3	253.7	254.3	254.9
32.5°	238.9	238.9	239.5	239.5	240.1	240.1	240.1	240.1
35°	222.9	224.1	224.1	224.7	225.3	225.9	225.9	226.5
37.5°	207.9	208.5	209.1	209.7	210.9	210.9	210.9	210.9
40°	191.9	192.5	193.7	193.1	195.5	196.1	195.5	195.5
42.5°	175.3	176.5	177.1	178.3	178.9	180.1	180.7	180.7
45°	159.9	160.5	161.7	162.9	163.5	165.1	165.1	165.1
47.5°	143.8	145.0	145.6	146.7	147.3	149.1	149.7	149.1
50°	128.3	129.5	130.7	130.7	132.5	133.1	134.3	134.9
52.5°	113.5	114.1	115.3	115.9	117.1	118.3	118.9	119.5
55°	99.2	99.8	101.0	101.0	102.8	103.4	104.6	104.6
57.5°	86.2	86.8	88.0	87.4	88.5	89.7	89.7	89.1
60°	73.7	73.7	73.7	74.9	75.5	76.1	76.6	76.6
62.5°	60.6	61.8	62.4	62.4	63.0	63.6	63.6	63.0
65°	48.8	50.0	50.5	50.5	51.1	51.1	51.1	51.7
67.5°	36.8	36.8	36.8	37.4	36.8	36.8	36.8	36.8
70°	23.2	23.2	23.2	23.2	22.6	23.2	23.2	23.8
72.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
75°	5.4	5.4	5.4	6.0	5.4	5.4	5.4	5.4
77.5°	2.4	1.8	2.4	2.4	1.8	1.8	1.8	1.8
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)