

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: P583651

Luminaire Tested: **HC807D010-HM80520930-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583651
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520930-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 801.4 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.08 / 1.17
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

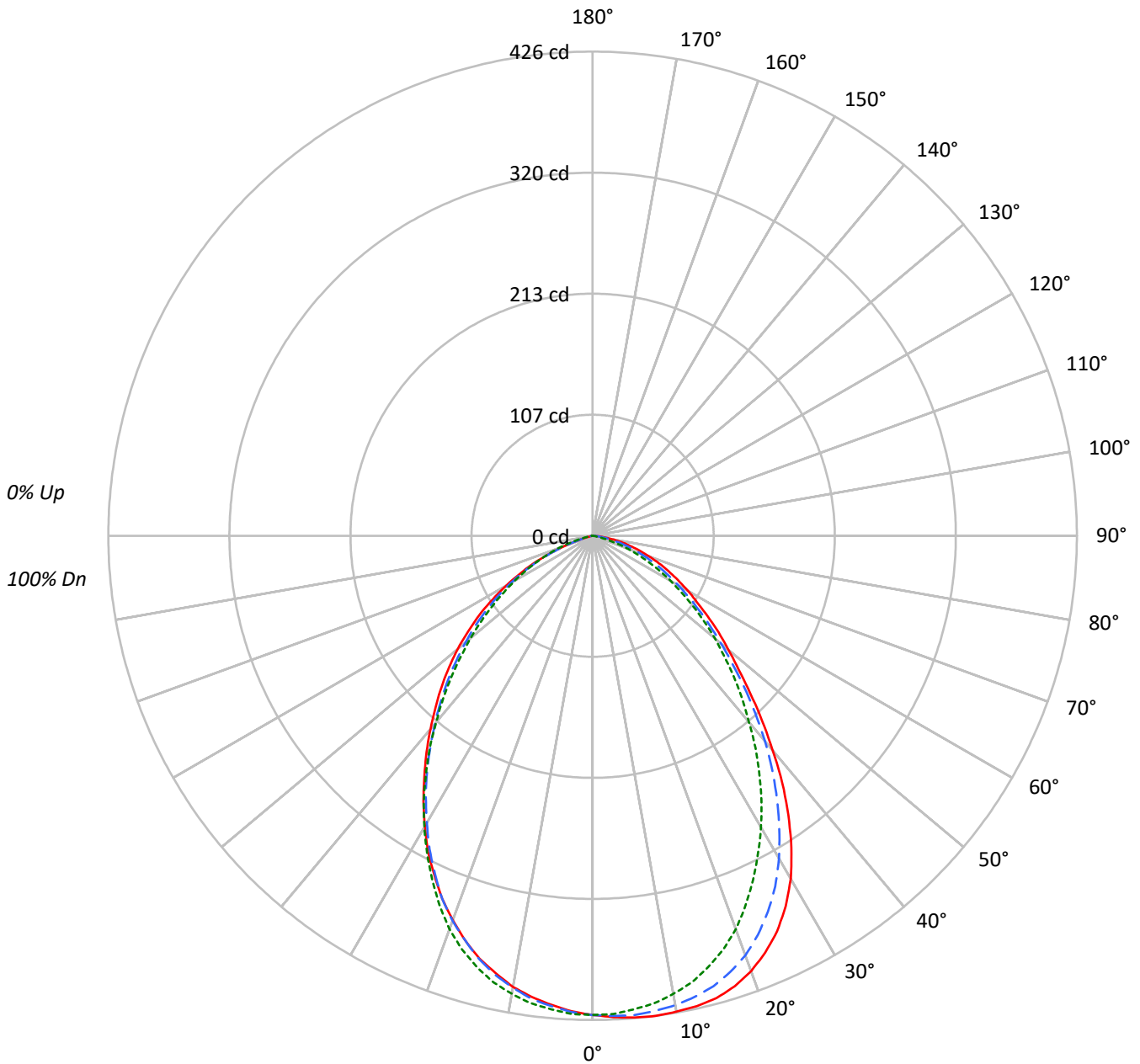
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583651

CATALOG NUMBER: HC807D010-HM80520930-81RWWC

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77								
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67								
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59								
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52								
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47								
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42								
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38								
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35								
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	13001	13001	13001
5°	13171	12945	12824
10°	13311	12816	12622
15°	13443	12543	12291
20°	13376	12083	11804
25°	13065	11361	11204
30°	12409	10543	10504
35°	11297	9622	9708
40°	9906	8610	8928
45°	8543	7662	8199
50°	7479	6726	7431
55°	6629	5785	6543
60°	5970	4866	5415
65°	5378	3904	4152
70°	4715	2840	2281
75°	4027	1477	596
80°	3090	408	107
85°	1981	0	0



TEST NUMBER: P583651

CATALOG NUMBER: HC807D010-HM80520930-81RWWC

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	5.0
10°-20°	111.8	14.0
20°-30°	158.7	19.8
30°-40°	167.1	20.9
40°-50°	142.1	17.7
50°-60°	102.7	12.8
60°-70°	58.4	7.3
70°-80°	18.4	2.3
80°-90°	2.2	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°	310.4	38.7
0°-40°	477.5	59.6
0°-60°	722.3	90.1
0°-90°	801.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	801.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	422	422	422	422	422	
5°	426	423	418	416	414	41
15°	421	410	393	386	385	119
25°	384	365	334	328	329	176
35°	300	283	256	254	258	187
45°	196	189	176	180	188	152
55°	123	114	108	114	122	111
65°	74	64	54	53	57	73
75°	34	26	12	6	5	36
85°	6	3	0	0	0	7
90°	0	0	0	0	0	



TEST NUMBER: P583651

CATALOG NUMBER: HC807D010-HM80520930-81RWWC

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6
2.5°	423.9	424.5	423.4	423.4	424.5	423.4	423.9	423.9	423.4	423.4	422.8
5°	425.5	425.1	425.1	425.1	425.5	424.5	423.9	424.5	423.4	423.4	423.4
7.5°	426.1	426.1	425.5	425.1	425.1	425.1	424.5	423.9	423.4	422.2	421.6
10°	425.1	425.1	425.5	424.5	424.5	423.4	423.4	422.2	422.2	421.1	419.4
12.5°	423.9	423.4	423.4	422.2	422.2	421.1	421.1	419.4	418.8	417.2	415.5
15°	421.1	420.5	419.4	418.8	418.2	417.8	416.6	416.0	414.3	412.0	410.4
17.5°	415.5	414.9	414.3	413.2	412.0	411.6	411.0	409.3	407.0	405.3	402.5
20°	407.6	407.0	407.0	405.3	404.7	403.1	402.5	400.2	398.5	395.2	392.9
22.5°	396.9	397.5	396.4	395.2	394.1	392.4	391.2	389.0	386.2	382.8	380.0
25°	384.0	384.6	383.4	382.3	380.6	379.4	378.3	374.9	372.1	368.2	364.8
27.5°	367.6	367.6	367.6	366.5	363.6	363.2	362.0	358.6	354.7	351.3	347.9
30°	348.5	347.9	347.9	346.2	345.1	342.8	341.2	338.3	335.6	331.6	327.7
32.5°	325.4	326.0	324.3	323.1	321.5	321.5	319.2	316.9	313.6	309.6	305.7
35°	300.1	300.7	299.5	299.0	296.1	295.5	295.0	292.2	289.9	287.2	282.6
37.5°	274.1	273.7	273.1	273.1	271.4	270.2	269.1	267.4	264.0	261.8	259.6
40°	246.1	246.1	246.1	245.5	244.9	243.8	243.2	242.1	239.8	237.6	235.9
42.5°	220.7	220.7	220.1	219.5	218.4	219.0	217.8	216.8	214.5	212.8	211.6
45°	195.9	195.9	195.9	196.5	195.4	193.7	193.7	192.5	191.4	190.2	188.6
47.5°	174.0	175.7	174.5	174.0	174.5	172.3	172.3	171.1	170.0	168.9	166.6
50°	155.9	155.9	155.9	154.9	154.3	154.3	152.6	151.4	150.9	149.7	147.5
52.5°	139.6	138.5	138.5	137.9	137.3	136.2	136.2	135.2	132.9	131.7	130.0
55°	123.3	123.3	122.7	122.1	121.7	121.1	120.5	118.8	117.7	115.9	114.2
57.5°	108.6	109.8	109.2	108.1	107.0	107.0	105.9	104.7	103.0	101.3	99.7
60°	96.8	96.3	96.3	95.7	94.5	94.0	93.4	91.8	90.1	88.4	86.6
62.5°	84.5	84.5	84.5	83.3	82.2	81.6	81.0	79.9	77.7	76.0	74.9
65°	73.7	73.1	72.7	72.1	71.5	70.4	69.8	68.7	67.0	65.2	63.6
67.5°	63.1	62.5	62.5	61.9	60.2	59.6	59.6	58.0	56.3	54.6	52.9
70°	52.3	52.3	52.3	51.3	50.7	50.1	49.6	48.4	46.7	45.1	43.4
72.5°	43.4	42.8	42.8	42.2	40.5	39.9	39.4	38.2	36.6	35.5	34.3
75°	33.8	33.8	33.2	32.6	32.1	31.5	31.0	29.9	28.2	26.4	25.9
77.5°	25.9	25.3	25.3	24.7	23.7	23.1	23.1	22.0	20.3	19.1	18.0
80°	17.4	18.0	17.4	16.8	16.4	15.8	15.2	14.6	13.5	12.4	11.2
82.5°	10.8	11.2	10.8	10.8	10.2	9.6	9.6	8.5	7.9	7.3	6.8
85°	5.6	5.6	5.6	5.6	5.0	5.0	5.0	4.5	3.9	3.3	3.3
87.5°	1.7	2.3	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.1	1.1
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: P583651

CATALOG NUMBER: HC807D010-HM80520930-81RWWC

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6
2.5°	423.4	422.8	422.2	422.2	422.2	422.2	422.2	421.6	421.1	421.1	421.1
5°	422.2	422.2	422.2	421.6	421.1	421.1	419.9	419.4	418.8	418.2	417.8
7.5°	421.1	419.9	419.4	418.8	418.2	418.2	417.2	416.0	416.0	414.9	413.8
10°	417.8	417.2	416.0	414.9	414.3	413.8	412.6	411.0	410.4	409.3	408.1
12.5°	413.8	412.6	411.6	409.3	408.7	408.1	405.9	404.1	403.1	402.5	399.7
15°	408.7	406.4	404.7	402.0	401.4	400.2	398.5	396.9	394.6	392.9	391.8
17.5°	399.7	397.5	394.6	391.8	390.6	390.6	387.9	385.6	382.8	381.7	379.4
20°	389.0	386.2	384.0	380.6	378.8	377.1	375.5	372.1	369.9	368.2	365.3
22.5°	376.7	372.7	369.9	366.5	363.6	362.0	359.2	356.3	353.5	351.8	349.5
25°	360.9	357.4	353.0	349.5	347.9	345.7	342.2	339.5	336.6	333.9	332.7
27.5°	343.4	338.9	335.0	331.0	329.3	327.7	323.7	320.4	318.1	315.2	314.2
30°	324.3	319.8	315.2	311.9	310.2	307.4	305.1	301.1	298.4	296.1	293.3
32.5°	302.3	299.0	295.0	289.9	288.8	286.6	283.2	281.4	278.1	276.4	274.1
35°	278.7	276.4	272.5	268.5	266.8	265.8	262.9	259.6	257.3	255.6	254.4
37.5°	256.1	253.3	249.4	246.5	245.5	243.8	240.4	238.6	236.5	235.3	233.0
40°	231.9	229.1	226.3	224.7	223.0	221.8	219.5	217.8	215.6	213.9	213.3
42.5°	208.3	206.6	204.3	202.1	201.6	199.8	198.7	197.1	195.4	194.8	193.1
45°	186.9	185.2	183.0	180.7	180.2	179.0	178.4	176.7	175.7	175.7	175.7
47.5°	165.5	163.8	161.6	160.5	161.0	158.7	158.7	158.2	157.0	157.0	157.6
50°	146.4	144.1	143.5	142.4	141.2	140.2	140.8	139.1	139.1	140.2	139.6
52.5°	128.3	126.1	125.6	124.4	123.8	123.8	123.3	123.3	122.7	123.3	123.3
55°	112.0	110.3	109.2	108.1	107.6	107.6	107.6	107.0	106.4	107.6	108.1
57.5°	97.4	96.8	95.7	94.0	93.4	92.9	92.4	92.4	92.4	92.4	92.9
60°	84.5	83.3	82.2	80.5	80.5	79.9	79.3	78.9	78.9	78.9	78.9
62.5°	73.1	71.5	69.8	68.7	68.1	67.5	67.0	65.8	65.8	65.8	65.8
65°	61.9	60.2	59.2	58.0	56.9	56.9	55.7	55.2	54.0	53.5	52.3
67.5°	51.3	50.1	49.0	47.3	46.7	46.1	45.1	44.5	42.8	42.2	41.7
70°	41.7	39.9	38.8	37.8	37.2	36.1	34.9	33.8	32.6	31.5	30.4
72.5°	32.6	31.0	29.9	28.7	27.6	27.6	25.9	24.7	23.1	22.0	20.3
75°	24.3	22.5	21.4	19.7	19.1	18.5	16.8	15.8	14.1	12.4	11.2
77.5°	16.4	15.2	14.1	12.4	11.2	11.2	9.6	8.5	7.3	5.6	5.0
80°	10.2	9.0	7.9	6.8	6.8	5.6	5.0	3.9	2.9	2.3	1.7
82.5°	5.6	5.0	4.5	3.3	3.3	2.9	2.3	1.7	1.1	0.6	0.6
85°	2.9	2.3	1.7	1.7	1.1	1.1	1.1	0.6	0.6	0.0	0.0
87.5°	1.1	0.6	0.6	0.6	0.6	0.6	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: P583651

CATALOG NUMBER: HC807D010-HM80520930-81RWWC

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6
2.5°	420.5	420.5	419.9	419.9	419.9	419.4	419.9	419.4	419.4	419.4	419.9
5°	418.2	417.2	417.2	416.6	416.6	416.0	416.6	416.0	415.5	414.9	415.5
7.5°	413.8	412.6	412.0	411.6	411.6	411.6	411.0	410.4	411.0	409.3	410.4
10°	407.6	407.0	405.9	405.3	404.7	405.3	404.7	403.7	403.7	403.7	403.1
12.5°	399.7	398.5	398.1	397.5	396.4	396.4	396.9	395.8	395.8	394.6	394.6
15°	390.2	389.0	387.9	387.9	386.7	386.7	386.2	386.2	385.6	385.0	385.0
17.5°	378.3	376.7	375.5	376.1	375.5	374.9	374.9	373.8	373.2	373.8	373.8
20°	364.2	363.2	362.0	362.6	361.4	360.9	361.4	359.7	360.3	360.3	360.3
22.5°	348.5	347.9	346.2	346.2	345.1	344.5	345.1	345.1	345.7	345.1	345.1
25°	331.0	329.9	328.7	328.7	328.1	327.7	328.1	328.7	328.1	328.7	328.7
27.5°	312.5	310.7	310.7	309.6	309.6	310.2	309.6	310.2	310.7	310.7	311.9
30°	292.2	291.6	291.1	290.5	290.5	291.1	291.1	291.1	291.6	292.8	292.8
32.5°	273.1	271.9	270.8	270.8	271.9	271.4	271.9	271.9	273.1	273.1	274.1
35°	252.3	252.3	251.1	251.7	251.7	251.7	251.7	252.7	253.9	254.4	255.6
37.5°	233.0	231.4	231.9	231.9	232.5	231.9	233.6	233.6	234.7	234.7	235.9
40°	212.2	212.2	212.8	212.2	212.8	212.8	213.9	215.1	215.6	216.8	217.3
42.5°	192.5	193.7	192.5	193.1	193.7	194.2	194.8	195.4	197.7	198.7	200.4
45°	174.5	175.1	175.7	176.3	175.7	176.7	177.3	178.4	180.2	180.7	181.3
47.5°	157.0	157.6	158.2	158.7	158.7	159.9	160.5	161.6	162.6	163.2	163.8
50°	140.2	141.2	141.8	141.8	142.4	143.5	144.7	144.7	145.8	147.5	148.1
52.5°	125.0	125.0	126.1	126.7	127.3	127.3	128.9	129.5	130.0	131.2	132.3
55°	108.1	109.8	110.3	110.3	111.5	112.6	113.2	113.8	113.8	115.9	115.9
57.5°	93.4	94.0	95.1	95.1	95.1	96.8	96.8	98.0	98.5	99.1	100.3
60°	78.9	79.9	79.9	80.5	79.9	81.0	81.6	82.8	83.3	83.9	84.5
62.5°	65.2	65.2	65.8	65.8	65.8	65.8	67.0	67.0	68.1	68.7	69.2
65°	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.9	52.9	54.0
67.5°	40.5	39.9	38.8	39.4	38.8	38.8	38.2	38.2	38.8	38.8	39.9
70°	29.3	28.7	27.6	27.6	27.0	26.4	25.9	25.3	24.7	24.7	24.7
72.5°	19.1	18.0	16.4	15.8	15.8	14.6	13.5	12.9	12.9	12.9	12.9
75°	9.6	8.5	7.3	6.8	6.8	5.6	6.2	5.6	5.6	5.6	5.6
77.5°	3.9	2.9	2.3	2.3	2.3	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	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	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: P583651

CATALOG NUMBER: HC807D010-HM80520930-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	421.6	421.6	421.6	421.6	421.6	421.6	421.6	421.6
2.5°	419.4	419.4	418.2	418.8	418.8	418.8	418.8	418.8
5°	414.3	414.9	414.3	414.9	414.9	414.3	414.3	414.3
7.5°	409.3	409.9	409.3	409.9	409.9	409.9	409.3	409.3
10°	403.1	403.1	403.1	403.1	403.1	402.5	403.1	403.1
12.5°	394.6	394.6	394.6	395.2	395.2	394.6	394.6	394.1
15°	385.6	384.6	385.0	385.6	385.0	385.0	385.0	385.0
17.5°	373.2	373.8	373.2	373.2	373.2	373.2	373.8	373.2
20°	360.3	360.3	360.9	360.3	360.3	360.3	360.3	359.7
22.5°	345.7	345.1	345.1	345.7	345.7	345.1	345.7	345.7
25°	329.3	329.9	329.3	329.3	329.9	329.9	329.9	329.3
27.5°	311.9	312.5	313.0	312.5	312.5	312.5	313.0	313.6
30°	293.9	295.0	293.9	293.9	295.0	294.4	295.0	295.0
32.5°	274.7	276.4	275.3	276.4	276.4	277.0	276.4	277.0
35°	255.6	257.3	257.3	257.3	257.9	258.4	258.4	257.9
37.5°	237.6	238.2	238.2	239.2	239.8	240.4	240.4	239.8
40°	219.0	220.1	220.7	220.7	220.7	221.8	223.0	221.8
42.5°	201.0	201.6	202.1	202.1	203.3	203.7	204.3	204.3
45°	183.6	184.6	185.2	185.8	186.3	187.5	186.9	188.0
47.5°	165.5	167.2	167.8	168.4	169.5	170.0	170.5	171.1
50°	149.1	150.3	150.3	151.4	153.1	153.1	154.3	154.9
52.5°	132.9	133.4	134.0	134.6	135.6	136.8	136.8	137.9
55°	117.1	117.7	117.7	118.2	118.8	121.1	121.7	121.7
57.5°	100.7	100.7	101.9	102.4	103.0	104.2	104.2	104.2
60°	85.0	85.6	85.6	86.2	86.6	87.8	88.4	87.8
62.5°	69.2	69.8	69.8	70.4	71.5	72.1	71.5	71.5
65°	54.6	55.2	55.2	55.7	56.9	56.9	56.3	56.9
67.5°	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9
70°	25.3	24.7	24.3	24.7	24.7	24.7	24.3	25.3
72.5°	12.4	12.9	12.9	12.9	12.9	12.9	12.9	12.4
75°	5.6	5.6	5.0	5.0	5.0	5.6	5.6	5.0
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	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)