

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: P583609

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583609
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-HM80520835-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 916.9 lumens
Efficiency: N/A
Efficacy: 114.6 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

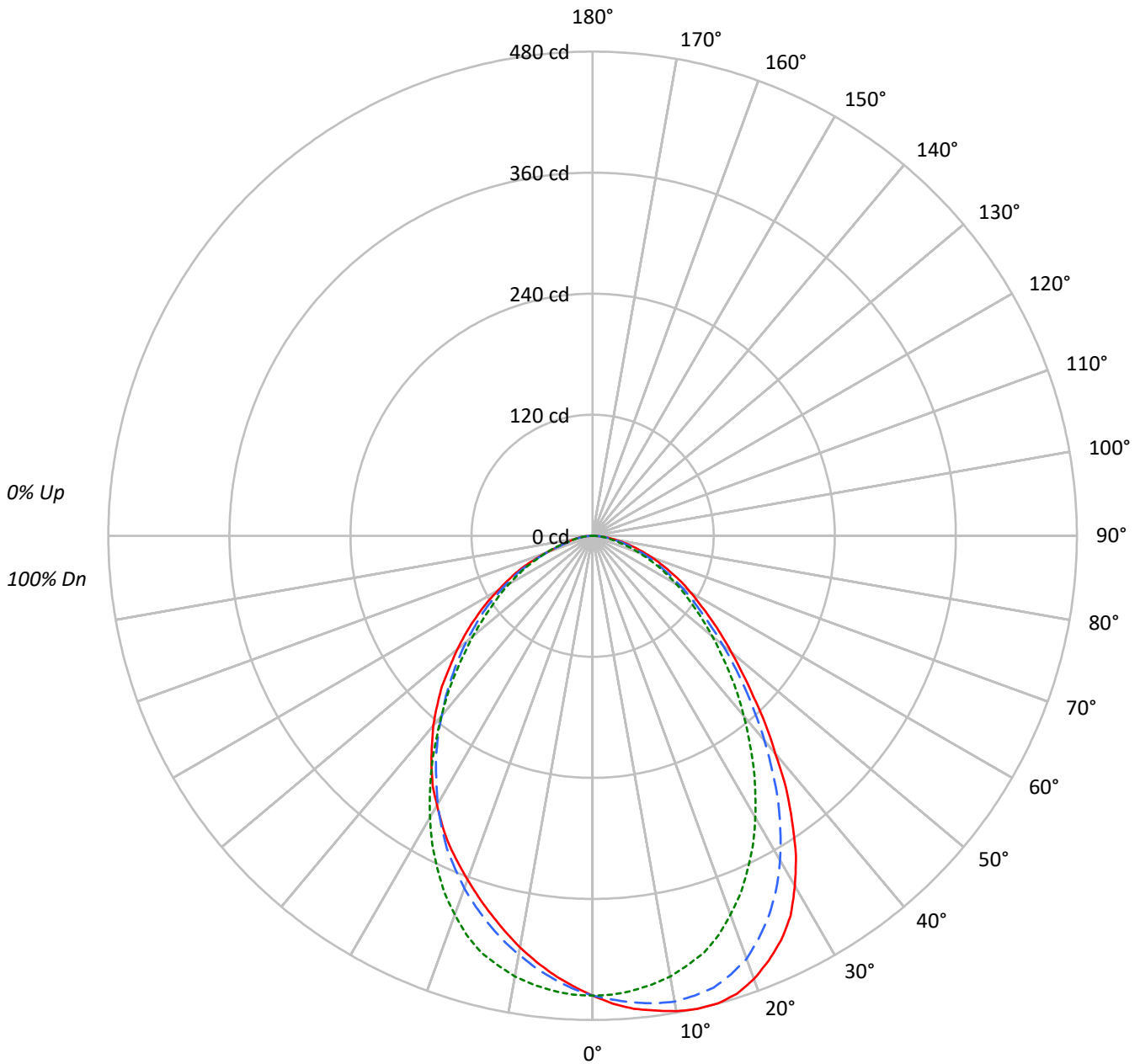
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50					50			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14058	14058	14058
5°	14573	14013	13530
10°	14986	13890	12976
15°	15320	13648	12406
20°	15344	13113	11902
25°	15049	12385	11476
30°	14275	11483	10978
35°	12968	10458	10480
40°	11340	9383	9882
45°	9829	8360	9210
50°	8606	7426	8386
55°	7656	6580	7586
60°	6914	5908	6667
65°	6231	5195	5815
70°	5599	4373	4319
75°	4944	3479	3241
80°	4138	2859	3090
85°	3220	2547	2760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	4.7
10°-20°	121.1	13.2
20°-30°	173.1	18.9
30°-40°	184.0	20.1
40°-50°	158.4	17.3
50°-60°	118.4	12.9
60°-70°	75.5	8.2
70°-80°	34.4	3.7
80°-90°	9.0	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°	337.3	36.8
0°-40°	521.2	56.8
0°-60°	798.0	87.0
0°-90°	916.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	916.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	456	456	456	456	456	
5°	471	464	453	441	437	45
15°	480	464	428	398	389	135
25°	442	414	364	342	337	202
35°	344	321	278	271	278	215
45°	225	213	192	197	211	175
55°	142	131	122	133	141	128
65°	85	76	71	74	80	85
75°	42	36	29	26	27	44
85°	9	8	7	8	8	11
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°	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9
2.5°	464.4	463.1	463.7	463.1	463.7	463.7	462.3	462.3	462.3	462.3	460.4
5°	470.8	470.1	470.1	469.5	468.9	469.5	468.9	468.2	466.9	466.3	464.4
7.5°	474.7	474.7	474.7	474.7	474.1	473.5	472.7	471.4	470.1	468.9	467.6
10°	478.6	479.2	478.6	477.9	477.3	476.0	475.4	474.1	472.1	470.1	468.9
12.5°	480.5	480.5	479.9	479.9	478.6	477.9	476.0	474.1	472.1	470.1	466.9
15°	479.9	479.9	479.2	478.6	476.7	476.0	474.7	472.7	469.5	466.9	463.7
17.5°	476.0	475.4	474.1	474.1	471.4	470.8	469.5	466.9	463.7	459.8	455.9
20°	467.6	467.6	466.9	466.3	463.7	461.7	460.4	457.2	454.6	450.0	446.2
22.5°	455.9	457.2	455.9	454.6	451.4	450.8	448.8	444.9	441.1	435.8	431.3
25°	442.3	441.7	441.1	439.8	437.1	435.8	433.3	429.4	425.5	419.7	414.4
27.5°	424.8	422.2	422.2	419.7	417.7	415.7	414.4	410.6	405.5	400.9	394.4
30°	400.9	401.5	398.3	397.6	394.4	393.2	390.5	386.6	382.0	376.9	371.8
32.5°	375.0	373.1	373.1	370.5	367.8	365.9	365.3	360.8	356.8	351.7	346.4
35°	344.5	344.5	342.6	341.9	339.4	338.1	336.2	333.5	329.0	324.4	320.6
37.5°	314.8	313.4	312.9	311.5	309.5	307.6	307.6	303.1	302.5	297.2	292.1
40°	281.7	283.0	281.7	279.7	279.2	277.8	277.1	274.6	272.7	268.2	264.9
42.5°	253.8	252.6	252.6	251.9	249.3	249.3	248.1	246.8	243.5	242.2	238.3
45°	225.4	226.7	224.8	225.4	222.7	222.7	222.7	220.2	217.6	215.7	213.1
47.5°	200.8	201.4	201.4	199.4	198.8	198.8	197.5	196.2	194.3	191.7	189.8
50°	179.4	180.1	178.8	178.1	176.7	176.1	176.1	173.5	172.3	169.7	168.4
52.5°	160.0	160.0	159.3	159.3	157.4	157.4	156.1	154.2	152.8	151.5	148.3
55°	142.4	142.4	141.8	141.1	141.1	139.2	138.6	136.6	135.4	132.8	130.9
57.5°	125.6	126.3	125.6	125.0	124.4	123.7	122.4	120.5	119.1	117.2	115.9
60°	112.1	112.1	111.4	110.8	109.5	108.7	108.1	106.8	104.9	103.6	101.7
62.5°	99.1	98.5	97.8	97.2	95.8	95.8	94.5	93.2	91.3	90.0	88.7
65°	85.4	85.4	84.8	84.8	84.2	82.9	82.2	81.6	79.0	78.4	75.8
67.5°	73.1	73.9	72.5	72.5	71.2	71.2	70.6	68.6	68.0	66.7	65.4
70°	62.1	62.1	62.1	61.5	60.2	59.6	58.9	57.6	57.0	55.7	54.4
72.5°	51.1	51.1	50.5	50.5	49.8	49.2	48.5	47.3	47.3	46.0	44.7
75°	41.5	41.5	40.7	40.2	39.6	39.6	38.8	38.2	36.9	36.2	35.6
77.5°	31.8	31.8	31.8	31.1	30.5	30.5	30.5	29.2	27.8	27.8	27.2
80°	23.3	23.3	22.7	22.7	22.0	22.0	22.0	21.4	20.7	20.1	19.5
82.5°	15.5	15.5	15.5	15.5	14.9	14.9	14.9	14.2	13.6	13.6	13.6
85°	9.1	9.1	9.1	9.1	8.4	8.4	8.4	8.4	8.4	7.8	7.8
87.5°	3.9	3.2	3.9	3.2	3.9	3.2	3.9	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9
2.5°	461.2	460.4	459.8	459.1	459.1	458.5	457.2	456.6	455.9	455.3	455.3
5°	463.7	463.1	461.7	460.4	459.8	458.5	457.2	455.9	454.6	452.7	452.1
7.5°	465.7	463.7	462.3	459.8	459.1	457.8	455.9	454.0	451.4	448.8	446.8
10°	465.7	463.1	461.2	457.8	456.6	455.3	452.7	449.4	446.2	443.6	440.4
12.5°	464.4	461.2	457.8	454.6	452.7	450.8	446.8	443.6	439.8	435.8	433.3
15°	459.8	455.9	452.1	448.1	446.2	443.6	439.8	435.2	431.3	427.5	422.9
17.5°	451.4	447.5	443.0	438.4	435.8	433.9	428.0	424.8	419.0	415.1	411.2
20°	440.4	435.8	430.0	425.5	422.2	420.3	415.7	409.9	405.5	399.6	395.7
22.5°	426.1	420.3	414.4	409.9	406.7	404.1	398.3	392.4	388.6	383.4	378.8
25°	409.3	403.4	397.6	391.1	387.9	385.4	380.1	375.0	369.7	364.0	360.1
27.5°	389.2	382.8	377.5	371.8	368.5	364.6	358.7	353.6	348.5	344.5	339.4
30°	367.2	360.1	354.9	349.1	345.8	342.6	336.8	331.6	327.1	322.5	319.9
32.5°	340.7	335.4	330.3	324.4	321.8	319.9	314.0	308.9	303.8	299.8	297.9
35°	315.4	309.5	305.1	299.8	296.6	294.7	289.4	285.0	282.4	277.8	275.2
37.5°	288.8	284.3	279.2	273.9	272.0	270.1	266.1	261.6	257.8	254.5	253.2
40°	261.0	257.0	252.6	249.3	247.4	245.5	242.2	239.0	236.4	233.1	231.8
42.5°	234.5	231.8	228.0	224.1	222.2	221.4	217.6	215.0	213.7	212.5	211.2
45°	210.4	206.6	204.0	201.4	199.4	198.1	196.2	194.3	193.0	191.7	190.4
47.5°	187.1	183.9	181.3	179.4	177.5	176.7	175.5	173.5	172.3	172.3	172.3
50°	165.7	163.2	160.6	159.3	158.7	157.4	156.1	155.5	154.8	154.8	154.8
52.5°	147.0	144.5	142.4	141.1	141.1	139.9	138.6	137.9	137.9	137.9	137.9
55°	129.5	127.6	126.3	125.0	123.7	123.1	123.1	123.1	122.4	122.4	123.1
57.5°	114.0	112.7	110.8	109.5	108.7	108.7	108.1	107.6	108.1	108.7	109.5
60°	99.8	98.5	97.8	95.8	95.8	95.8	95.2	95.2	95.2	95.8	96.4
62.5°	86.8	86.2	84.8	84.2	83.5	83.5	82.9	82.9	82.9	82.9	83.5
65°	75.2	73.9	72.5	72.5	72.5	71.9	71.9	70.6	71.2	71.2	70.6
67.5°	64.2	62.9	62.1	61.5	60.8	60.8	60.2	59.6	58.9	58.9	58.9
70°	53.8	52.5	52.5	51.1	51.1	50.5	49.8	49.8	49.2	48.5	47.9
72.5°	43.4	42.8	42.1	41.5	41.5	41.5	40.7	40.2	39.6	38.8	37.5
75°	34.3	34.3	33.0	32.4	32.4	31.8	31.1	30.5	29.8	29.2	28.4
77.5°	26.5	25.9	24.6	24.0	24.0	24.0	23.3	22.7	22.0	21.4	20.7
80°	19.5	18.8	18.2	17.4	17.4	17.4	16.8	16.8	16.1	16.1	16.1
82.5°	12.9	12.9	12.3	12.3	12.3	12.3	11.7	11.7	11.7	11.7	11.7
85°	7.8	7.8	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9
2.5°	454.0	454.0	452.7	452.1	451.4	452.1	450.8	450.0	449.4	449.4	448.8
5°	450.0	449.4	446.8	446.2	445.6	444.9	443.6	442.3	441.1	440.4	439.8
7.5°	444.9	443.0	440.4	439.8	439.0	437.1	435.2	433.9	432.0	431.3	430.0
10°	437.7	435.2	433.3	431.3	430.0	428.0	426.1	424.2	421.6	421.0	419.0
12.5°	429.4	426.1	422.2	421.6	419.7	417.1	414.4	412.5	410.6	409.3	407.4
15°	419.0	415.7	411.9	409.9	408.0	406.1	402.8	400.2	398.3	396.4	394.4
17.5°	406.7	402.8	399.6	397.6	396.4	393.2	390.5	387.3	385.4	383.4	381.4
20°	391.8	388.6	384.1	382.0	381.4	378.8	375.6	374.3	371.8	369.7	368.5
22.5°	375.0	371.8	367.8	366.5	364.0	362.7	359.5	358.1	356.8	354.9	354.2
25°	356.2	353.0	349.7	349.1	347.1	345.8	343.9	341.9	341.9	340.0	340.0
27.5°	336.8	333.5	330.9	329.6	329.0	327.7	325.8	325.2	324.4	323.8	323.8
30°	316.1	312.1	310.8	310.2	309.5	308.3	307.6	306.3	307.0	307.6	307.0
32.5°	294.0	292.8	290.1	288.8	289.4	288.8	287.5	288.8	288.2	289.4	290.1
35°	272.7	271.4	270.1	270.1	268.8	268.8	268.8	269.4	270.7	271.4	272.7
37.5°	251.9	250.0	249.3	248.7	249.3	249.3	249.3	250.6	251.9	253.2	255.1
40°	229.9	228.6	228.6	228.6	228.6	230.5	229.9	231.2	232.5	234.5	236.4
42.5°	209.1	209.1	209.8	209.8	209.8	209.8	211.2	213.1	215.0	216.9	218.9
45°	189.8	189.8	189.8	191.1	191.1	191.7	194.3	195.6	196.8	198.8	200.8
47.5°	171.6	171.6	172.3	172.9	173.5	174.8	176.1	178.1	180.1	181.3	183.3
50°	154.8	155.5	156.7	158.0	158.0	158.7	160.6	161.9	163.2	165.1	165.7
52.5°	138.6	139.9	141.1	141.8	142.4	143.8	144.5	146.4	147.0	148.9	149.6
55°	123.7	124.4	126.3	126.9	126.9	128.2	129.5	130.9	132.8	132.8	134.1
57.5°	110.1	110.8	112.1	112.7	112.1	114.0	114.6	115.9	116.5	117.8	118.5
60°	96.4	97.8	98.5	98.5	99.1	99.8	101.0	101.0	102.3	103.6	103.6
62.5°	83.5	84.2	84.8	85.4	86.2	85.4	87.5	87.5	88.7	89.4	90.7
65°	71.2	71.9	71.9	72.5	72.5	73.1	73.1	73.9	74.4	75.8	76.4
67.5°	58.9	58.9	58.9	59.6	58.9	59.6	59.6	60.2	60.2	61.5	62.1
70°	47.9	47.3	46.6	46.6	46.6	46.6	46.0	46.6	46.6	47.3	47.3
72.5°	36.9	36.2	35.6	35.0	35.0	34.3	33.7	34.3	34.3	35.0	35.0
75°	27.8	26.5	26.5	26.5	25.9	25.9	25.9	26.5	26.5	26.5	27.2
77.5°	20.7	20.7	20.1	20.1	20.1	20.7	20.7	21.4	21.4	21.4	21.4
80°	15.5	16.1	16.1	16.1	16.1	16.8	16.8	16.8	16.8	17.4	17.4
82.5°	11.7	11.7	11.7	11.7	12.3	12.3	12.3	12.3	12.3	12.3	12.3
85°	7.2	7.8	7.8	7.2	7.8	7.8	7.8	7.8	7.8	7.8	7.8
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	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: P583609

CATALOG NUMBER: HC807D010-HM80520835-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	455.9	455.9	455.9	455.9	455.9	455.9	455.9	455.9
2.5°	448.1	448.1	448.1	448.1	447.5	447.5	447.5	446.8
5°	438.4	438.4	438.4	437.1	437.7	437.7	436.5	437.1
7.5°	428.8	428.0	427.5	427.5	426.7	426.1	425.5	426.1
10°	417.7	415.7	415.7	415.1	415.1	413.8	413.8	414.4
12.5°	405.5	404.1	404.1	403.4	402.8	402.1	401.5	401.5
15°	393.2	391.8	391.1	390.5	389.8	388.6	389.2	388.6
17.5°	380.8	378.8	378.8	378.2	377.5	376.3	376.3	375.6
20°	366.5	365.9	364.6	365.3	364.6	363.3	362.7	362.7
22.5°	352.3	352.3	351.7	351.7	351.0	350.4	349.7	349.7
25°	338.7	338.1	338.7	338.7	336.8	336.8	336.8	337.3
27.5°	323.1	323.8	323.1	323.1	323.1	323.1	323.8	323.1
30°	307.6	307.6	307.6	308.3	309.5	308.9	308.9	308.3
32.5°	290.7	291.5	291.5	292.1	292.8	294.0	294.0	294.7
35°	273.9	275.2	275.9	275.2	277.1	277.1	278.4	278.4
37.5°	256.4	257.0	258.4	259.1	260.4	261.0	261.6	261.6
40°	237.7	240.3	240.9	241.5	243.5	243.5	244.1	245.5
42.5°	220.2	222.7	223.5	224.1	225.4	227.3	226.7	228.0
45°	203.4	205.3	205.9	206.6	208.5	209.1	209.1	211.2
47.5°	185.2	186.5	187.1	188.5	189.8	191.1	192.4	191.7
50°	167.1	169.0	170.3	171.0	172.9	173.5	174.2	174.8
52.5°	150.9	152.2	152.8	153.4	155.5	156.1	156.7	158.0
55°	135.4	136.0	137.3	136.6	138.6	139.2	139.9	141.1
57.5°	119.9	120.5	121.1	121.1	122.4	123.7	124.4	125.0
60°	104.9	106.2	106.8	106.8	106.8	108.1	108.1	108.1
62.5°	91.3	91.3	92.0	92.0	93.2	93.2	93.2	93.2
65°	77.1	77.7	78.4	78.4	79.7	79.0	80.3	79.7
67.5°	62.1	62.1	63.5	63.5	62.9	63.5	63.5	63.5
70°	47.3	47.3	47.9	47.9	47.9	47.9	47.9	47.9
72.5°	35.0	35.0	35.0	35.6	35.0	35.0	35.6	35.0
75°	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2
77.5°	21.4	21.4	22.0	22.0	22.0	22.0	22.0	22.0
80°	17.4	17.4	17.4	17.4	18.2	17.4	17.4	17.4
82.5°	12.9	12.3	12.9	12.3	12.9	12.9	12.9	12.9
85°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
87.5°	3.2	3.2	3.2	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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)