

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: P593481

Luminaire Tested: **HC805D010-HM80520950-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593481
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: HC805D010-HM80520950-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 656.8 lumens
Efficiency: N/A
Efficacy: 109.5 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

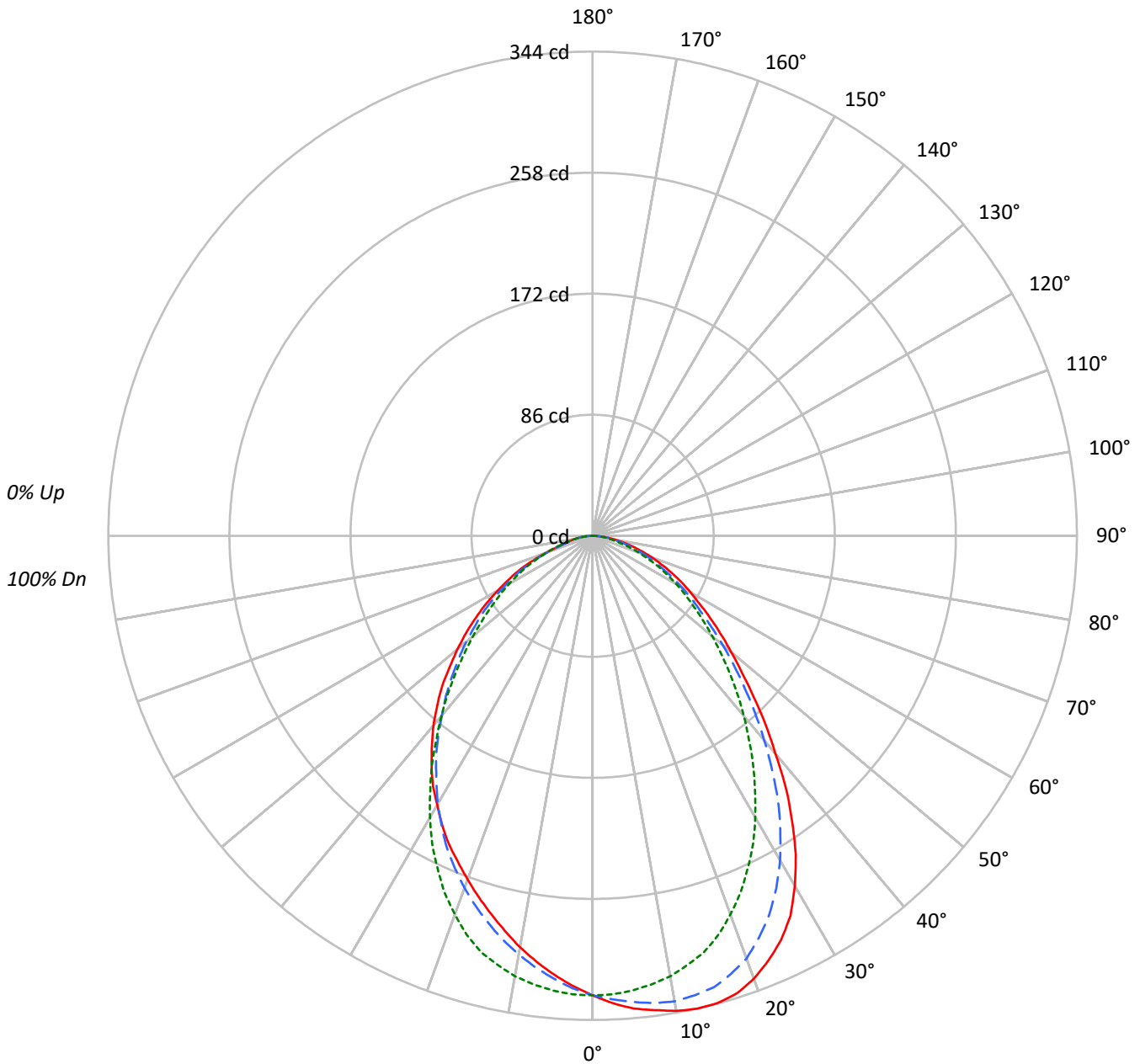
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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				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°	10068	10068	10068
5°	10438	10038	9692
10°	10734	9948	9297
15°	10972	9775	8884
20°	10990	9392	8522
25°	10779	8870	8224
30°	10226	8225	7862
35°	9291	7487	7506
40°	8123	6722	7077
45°	7043	5988	6594
50°	6160	5315	6006
55°	5489	4710	5435
60°	4946	4237	4773
65°	4473	3721	4166
70°	4012	3138	3101
75°	3539	2478	2323
80°	2983	2060	2237
85°	2300	1804	1981



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.8	4.7
10°-20°	86.8	13.2
20°-30°	124.0	18.9
30°-40°	131.8	20.1
40°-50°	113.4	17.3
50°-60°	84.8	12.9
60°-70°	54.1	8.2
70°-80°	24.6	3.7
80°-90°	6.5	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°	241.6	36.8
0°-40°	373.3	56.8
0°-60°	571.6	87.0
0°-90°	656.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	656.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	326	326	326	326	326	
5°	337	332	324	316	313	32
15°	344	332	306	285	278	97
25°	317	297	261	245	242	145
35°	247	230	199	194	199	154
45°	162	153	137	141	151	125
55°	102	94	88	95	101	92
65°	61	54	51	53	57	61
75°	30	26	21	19	20	32
85°	6	6	5	6	6	8
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°	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5
2.5°	332.5	331.7	332.2	331.7	332.2	332.2	331.2	331.2	331.2	331.2	329.8
5°	337.2	336.7	336.7	336.2	335.9	336.2	335.9	335.4	334.4	334.0	332.5
7.5°	339.9	339.9	339.9	339.9	339.6	339.1	338.6	337.7	336.7	335.9	334.9
10°	342.8	343.3	342.8	342.3	341.9	340.9	340.4	339.6	338.2	336.7	335.9
12.5°	344.1	344.1	343.7	343.7	342.8	342.3	340.9	339.6	338.2	336.7	334.4
15°	343.7	343.7	343.3	342.8	341.4	340.9	339.9	338.6	336.2	334.4	332.2
17.5°	340.9	340.4	339.6	339.6	337.7	337.2	336.2	334.4	332.2	329.3	326.5
20°	334.9	334.9	334.4	334.0	332.2	330.7	329.8	327.5	325.6	322.4	319.6
22.5°	326.5	327.5	326.5	325.6	323.3	322.8	321.4	318.6	315.9	312.2	308.9
25°	316.8	316.4	315.9	314.9	313.1	312.2	310.3	307.5	304.8	300.6	296.9
27.5°	304.3	302.5	302.5	300.6	299.1	297.8	296.9	294.1	290.4	287.2	282.5
30°	287.2	287.6	285.2	284.8	282.5	281.5	279.7	276.9	273.6	269.9	266.2
32.5°	268.6	267.2	267.2	265.4	263.5	262.0	261.7	258.3	255.6	251.8	248.1
35°	246.8	246.8	245.4	244.9	243.1	242.2	240.7	238.9	235.7	232.3	229.6
37.5°	225.4	224.6	224.1	223.1	221.7	220.4	220.4	217.1	216.7	212.9	209.2
40°	201.8	202.7	201.8	200.4	199.9	198.9	198.6	196.7	195.2	192.0	189.7
42.5°	181.8	180.9	180.9	180.4	178.6	178.6	177.6	176.7	174.4	173.4	170.7
45°	161.5	162.3	161.0	161.5	159.6	159.6	159.6	157.8	155.8	154.4	152.6
47.5°	143.8	144.2	144.2	142.9	142.4	142.4	141.5	140.5	139.2	137.3	135.9
50°	128.4	128.9	128.1	127.6	126.6	126.2	126.2	124.4	123.4	121.5	120.7
52.5°	114.6	114.6	114.1	114.1	112.8	112.8	111.8	110.4	109.5	108.6	106.2
55°	102.1	102.1	101.6	101.1	101.1	99.7	99.2	97.9	97.0	95.0	93.7
57.5°	90.0	90.5	90.0	89.5	89.1	88.6	87.6	86.3	85.3	83.9	83.1
60°	80.2	80.2	79.8	79.4	78.4	77.9	77.4	76.5	75.2	74.2	72.8
62.5°	71.0	70.5	70.0	69.5	68.7	68.7	67.8	66.8	65.4	64.5	63.6
65°	61.3	61.3	60.8	60.8	60.3	59.4	58.9	58.4	56.6	56.1	54.2
67.5°	52.4	52.9	51.9	51.9	51.0	51.0	50.5	49.2	48.7	47.8	46.8
70°	44.5	44.5	44.5	44.0	43.1	42.7	42.3	41.3	40.8	39.9	39.0
72.5°	36.6	36.6	36.1	36.1	35.7	35.3	34.8	33.9	33.9	32.9	32.0
75°	29.7	29.7	29.2	28.7	28.2	28.2	27.9	27.4	26.5	26.0	25.5
77.5°	22.7	22.7	22.7	22.3	21.8	21.8	21.8	20.8	20.0	20.0	19.5
80°	16.8	16.8	16.3	16.3	15.8	15.8	15.8	15.3	14.8	14.4	13.9
82.5°	11.1	11.1	11.1	11.1	10.7	10.7	10.7	10.2	9.7	9.7	9.7
85°	6.5	6.5	6.5	6.5	6.0	6.0	6.0	6.0	6.0	5.6	5.6
87.5°	2.8	2.3	2.8	2.3	2.8	2.3	2.8	2.3	2.3	2.3	2.3
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°	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5
2.5°	330.3	329.8	329.3	328.8	328.8	328.5	327.5	327.0	326.5	326.1	326.1
5°	332.2	331.7	330.7	329.8	329.3	328.5	327.5	326.5	325.6	324.3	323.8
7.5°	333.5	332.2	331.2	329.3	328.8	328.0	326.5	325.1	323.3	321.4	320.1
10°	333.5	331.7	330.3	328.0	327.0	326.1	324.3	321.9	319.6	317.7	315.4
12.5°	332.5	330.3	328.0	325.6	324.3	322.8	320.1	317.7	314.9	312.2	310.3
15°	329.3	326.5	323.8	321.0	319.6	317.7	314.9	311.7	308.9	306.2	302.8
17.5°	323.3	320.6	317.3	314.0	312.2	310.7	306.6	304.3	300.1	297.3	294.6
20°	315.4	312.2	308.0	304.8	302.5	301.0	297.8	293.6	290.4	286.2	283.4
22.5°	305.2	301.0	296.9	293.6	291.3	289.4	285.2	281.1	278.3	274.6	271.4
25°	293.1	289.0	284.8	280.2	277.8	276.0	272.3	268.6	264.9	260.7	258.0
27.5°	278.8	274.1	270.4	266.2	263.9	261.2	257.0	253.3	249.6	246.8	243.1
30°	263.0	258.0	254.2	250.1	247.7	245.4	241.2	237.5	234.3	231.0	229.1
32.5°	243.9	240.2	236.5	232.3	230.5	229.1	224.9	221.2	217.5	214.7	213.4
35°	225.9	221.7	218.5	214.7	212.5	211.0	207.3	204.1	202.3	198.9	197.1
37.5°	206.8	203.6	199.9	196.2	194.9	193.4	190.7	187.5	184.6	182.3	181.3
40°	187.0	184.1	180.9	178.6	177.2	175.8	173.4	171.2	169.3	167.0	166.0
42.5°	167.9	166.0	163.3	160.5	159.1	158.6	155.8	154.1	153.1	152.1	151.2
45°	150.7	147.9	146.2	144.2	142.9	142.0	140.5	139.2	138.3	137.3	136.3
47.5°	134.1	131.8	129.9	128.4	127.1	126.6	125.7	124.4	123.4	123.4	123.4
50°	118.7	116.9	115.0	114.1	113.6	112.8	111.8	111.3	110.8	110.8	110.8
52.5°	105.3	103.4	102.1	101.1	101.1	100.2	99.2	98.8	98.8	98.8	98.8
55°	92.8	91.3	90.5	89.5	88.6	88.1	88.1	88.1	87.6	87.6	88.1
57.5°	81.6	80.7	79.4	78.4	77.9	77.9	77.4	77.0	77.4	77.9	78.4
60°	71.5	70.5	70.0	68.7	68.7	68.7	68.2	68.2	68.2	68.7	69.1
62.5°	62.1	61.6	60.8	60.3	59.8	59.8	59.4	59.4	59.4	59.4	59.8
65°	53.9	52.9	51.9	51.9	51.9	51.5	51.5	50.5	51.0	51.0	50.5
67.5°	46.0	45.0	44.5	44.0	43.6	43.6	43.1	42.7	42.3	42.3	42.3
70°	38.5	37.6	37.6	36.6	36.6	36.1	35.7	35.7	35.3	34.8	34.4
72.5°	31.1	30.6	30.2	29.7	29.7	29.7	29.2	28.7	28.2	27.9	26.9
75°	24.5	24.5	23.7	23.2	23.2	22.7	22.3	21.8	21.3	20.8	20.5
77.5°	19.0	18.6	17.6	17.1	17.1	17.1	16.8	16.3	15.8	15.3	14.8
80°	13.9	13.4	13.0	12.6	12.6	12.6	12.1	12.1	11.6	11.6	11.6
82.5°	9.3	9.3	8.9	8.9	8.9	8.9	8.4	8.4	8.4	8.4	8.4
85°	5.6	5.6	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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°	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5
2.5°	325.1	325.1	324.3	323.8	323.3	323.8	322.8	322.4	321.9	321.9	321.4
5°	322.4	321.9	320.1	319.6	319.1	318.6	317.7	316.8	315.9	315.4	314.9
7.5°	318.6	317.3	315.4	314.9	314.5	313.1	311.7	310.7	309.4	308.9	308.0
10°	313.6	311.7	310.3	308.9	308.0	306.6	305.2	303.8	302.0	301.5	300.1
12.5°	307.5	305.2	302.5	302.0	300.6	298.8	296.9	295.4	294.1	293.1	291.7
15°	300.1	297.8	295.1	293.6	292.2	290.9	288.5	286.7	285.2	283.9	282.5
17.5°	291.3	288.5	286.2	284.8	283.9	281.5	279.7	277.3	276.0	274.6	273.2
20°	280.6	278.3	275.1	273.6	273.2	271.4	269.1	268.1	266.2	264.9	263.9
22.5°	268.6	266.2	263.5	262.5	260.7	259.7	257.5	256.5	255.6	254.2	253.8
25°	255.1	252.8	250.5	250.1	248.6	247.7	246.3	244.9	244.9	243.5	243.5
27.5°	241.2	238.9	237.0	236.0	235.7	234.7	233.3	232.8	232.3	232.0	232.0
30°	226.4	223.6	222.6	222.2	221.7	220.8	220.4	219.4	219.9	220.4	219.9
32.5°	210.6	209.7	207.8	206.8	207.3	206.8	206.0	206.8	206.4	207.3	207.8
35°	195.2	194.4	193.4	193.4	192.5	192.5	192.5	193.0	193.9	194.4	195.2
37.5°	180.4	179.1	178.6	178.1	178.6	178.6	178.6	179.6	180.4	181.3	182.8
40°	164.7	163.7	163.7	163.7	163.7	165.2	164.7	165.5	166.5	167.9	169.3
42.5°	149.9	149.9	150.3	150.3	150.3	150.3	151.2	152.6	154.1	155.4	156.8
45°	135.9	135.9	135.9	136.8	136.8	137.3	139.2	140.0	141.0	142.4	143.8
47.5°	122.9	122.9	123.4	123.9	124.4	125.2	126.2	127.6	128.9	129.9	131.3
50°	110.8	111.3	112.3	113.2	113.2	113.6	115.0	116.0	116.9	118.3	118.7
52.5°	99.2	100.2	101.1	101.6	102.1	102.9	103.4	104.9	105.3	106.7	107.1
55°	88.6	89.1	90.5	91.0	91.0	91.8	92.8	93.7	95.0	95.0	96.0
57.5°	78.9	79.4	80.2	80.7	80.2	81.6	82.1	83.1	83.6	84.4	84.9
60°	69.1	70.0	70.5	70.5	71.0	71.5	72.4	72.4	73.3	74.2	74.2
62.5°	59.8	60.3	60.8	61.3	61.6	61.3	62.6	62.6	63.6	64.0	65.0
65°	51.0	51.5	51.5	51.9	51.9	52.4	52.4	52.9	53.4	54.2	54.7
67.5°	42.3	42.3	42.3	42.7	42.3	42.7	42.7	43.1	43.1	44.0	44.5
70°	34.4	33.9	33.4	33.4	33.4	33.4	32.9	33.4	33.4	33.9	33.9
72.5°	26.5	26.0	25.5	25.0	25.0	24.5	24.2	24.5	24.5	25.0	25.0
75°	20.0	19.0	19.0	19.0	18.6	18.6	18.6	19.0	19.0	19.0	19.5
77.5°	14.8	14.8	14.4	14.4	14.4	14.8	14.8	15.3	15.3	15.3	15.3
80°	11.1	11.6	11.6	11.6	11.6	12.1	12.1	12.1	12.1	12.6	12.6
82.5°	8.4	8.4	8.4	8.4	8.9	8.9	8.9	8.9	8.9	8.9	8.9
85°	5.1	5.6	5.6	5.1	5.6	5.6	5.6	5.6	5.6	5.6	5.6
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P593481

CATALOG NUMBER: HC805D010-HM80520950-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5
2.5°	321.0	321.0	321.0	321.0	320.6	320.6	320.6	320.1
5°	314.0	314.0	314.0	313.1	313.6	313.6	312.7	313.1
7.5°	307.0	306.6	306.2	306.2	305.7	305.2	304.8	305.2
10°	299.1	297.8	297.8	297.3	297.3	296.4	296.4	296.9
12.5°	290.4	289.4	289.4	289.0	288.5	288.0	287.6	287.6
15°	281.5	280.6	280.2	279.7	279.3	278.3	278.8	278.3
17.5°	272.8	271.4	271.4	270.9	270.4	269.4	269.4	269.1
20°	262.5	262.0	261.2	261.7	261.2	260.2	259.7	259.7
22.5°	252.3	252.3	251.8	251.8	251.4	250.9	250.5	250.5
25°	242.6	242.2	242.6	242.6	241.2	241.2	241.2	241.7
27.5°	231.5	232.0	231.5	231.5	231.5	231.5	232.0	231.5
30°	220.4	220.4	220.4	220.8	221.7	221.2	221.2	220.8
32.5°	208.3	208.8	208.8	209.2	209.7	210.6	210.6	211.0
35°	196.2	197.1	197.6	197.1	198.6	198.6	199.4	199.4
37.5°	183.7	184.1	185.1	185.5	186.5	187.0	187.5	187.5
40°	170.2	172.1	172.6	173.0	174.4	174.4	174.9	175.8
42.5°	157.8	159.6	160.0	160.5	161.5	162.8	162.3	163.3
45°	145.7	147.0	147.5	147.9	149.4	149.9	149.9	151.2
47.5°	132.6	133.6	134.1	135.0	135.9	136.8	137.8	137.3
50°	119.7	121.0	122.0	122.5	123.9	124.4	124.7	125.2
52.5°	108.1	109.0	109.5	109.9	111.3	111.8	112.3	113.2
55°	97.0	97.4	98.4	97.9	99.2	99.7	100.2	101.1
57.5°	85.8	86.3	86.8	86.8	87.6	88.6	89.1	89.5
60°	75.2	76.1	76.5	76.5	76.5	77.4	77.4	77.4
62.5°	65.4	65.4	65.8	65.8	66.8	66.8	66.8	66.8
65°	55.2	55.7	56.1	56.1	57.1	56.6	57.6	57.1
67.5°	44.5	44.5	45.5	45.5	45.0	45.5	45.5	45.5
70°	33.9	33.9	34.4	34.4	34.4	34.4	34.4	34.4
72.5°	25.0	25.0	25.0	25.5	25.0	25.0	25.5	25.0
75°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
77.5°	15.3	15.3	15.8	15.8	15.8	15.8	15.8	15.8
80°	12.6	12.6	12.6	12.6	13.0	12.6	12.6	12.6
82.5°	9.3	8.9	9.3	8.9	9.3	9.3	9.3	9.3
85°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)