

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: P583506

Luminaire Tested: **HC805D010-HM80520927-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583506
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: HC805D010-HM80520927-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 523.8 lumens
Efficiency: N/A
Efficacy: 87.3 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

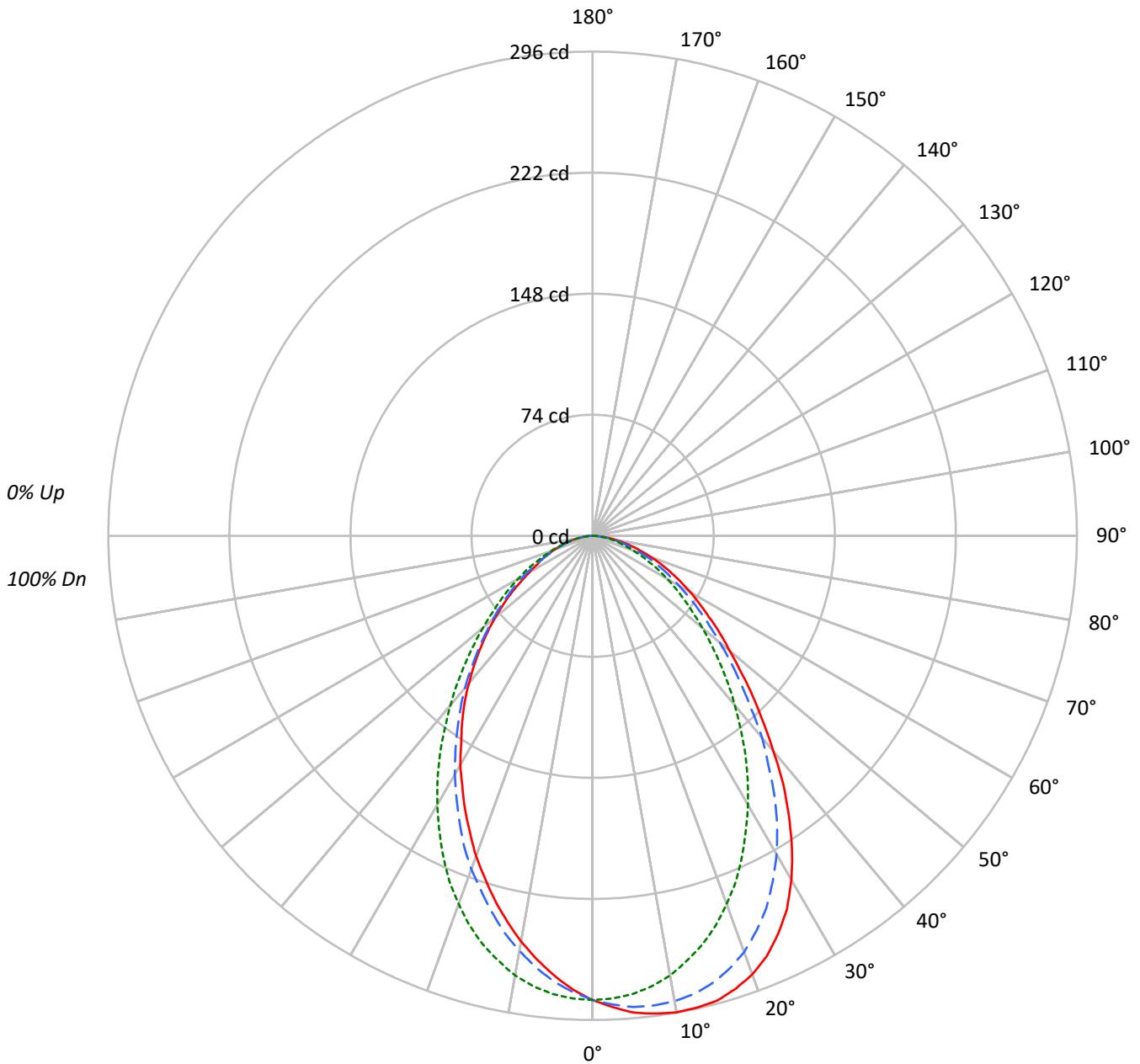
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8751	8751	8751
5°	9060	8704	8355
10°	9262	8548	7884
15°	9392	8262	7365
20°	9365	7859	6839
25°	9132	7353	6277
30°	8652	6758	5758
35°	7871	6121	5233
40°	6916	5438	4726
45°	6031	4788	4217
50°	5248	4193	3713
55°	4677	3688	3231
60°	4249	3232	2751
65°	3823	2809	2495
70°	3399	2398	2254
75°	2979	2025	1930
80°	2522	1634	1705
85°	1911	1238	1344



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	5.1
10°-20°	73.2	14.0
20°-30°	101.7	19.4
30°-40°	105.1	20.1
40°-50°	88.0	16.8
50°-60°	63.9	12.2
60°-70°	40.3	7.7
70°-80°	20.0	3.8
80°-90°	5.0	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°	201.5	38.5
0°-40°	306.6	58.5
0°-60°	458.5	87.5
0°-90°	523.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	523.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	284	284	284	284	284	
5°	293	289	281	273	270	28
15°	294	283	259	238	231	83
25°	268	251	216	193	184	123
35°	209	194	163	144	139	130
45°	138	128	110	99	97	107
55°	87	79	69	63	60	79
65°	52	46	38	34	34	52
75°	25	21	17	16	16	27
85°	5	4	4	4	4	7
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°	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8
2.5°	288.5	288.5	288.8	288.5	288.5	288.5	288.0	288.0	287.6	287.6	286.9
5°	292.7	291.9	292.7	291.9	291.9	291.9	291.5	290.8	290.4	289.6	289.2
7.5°	294.6	294.2	294.2	293.9	293.9	293.5	293.0	292.7	291.1	290.8	289.6
10°	295.8	295.4	295.4	294.9	294.2	294.2	293.5	293.0	291.1	290.4	288.8
12.5°	295.4	295.4	295.4	294.9	293.9	293.5	292.7	291.5	290.0	288.5	286.9
15°	294.2	294.2	293.5	293.0	291.9	291.1	290.8	288.8	287.3	285.4	283.1
17.5°	290.4	290.4	290.0	289.2	288.0	287.3	286.6	284.6	283.1	280.0	277.7
20°	285.4	285.0	284.6	283.4	282.3	281.9	280.7	278.1	276.1	273.8	270.8
22.5°	278.1	277.7	277.2	276.5	274.6	273.8	273.0	271.1	267.6	265.4	261.5
25°	268.4	268.4	267.6	266.5	264.5	263.8	262.6	260.7	257.6	254.1	251.1
27.5°	257.2	256.9	255.7	255.0	253.4	252.2	250.3	248.0	244.9	242.3	238.3
30°	243.0	243.0	242.3	241.1	239.2	238.3	236.9	234.1	231.0	227.5	224.9
32.5°	226.8	226.8	225.6	224.9	223.7	221.8	221.4	218.3	215.7	212.9	209.8
35°	209.1	209.5	208.8	207.2	205.3	205.3	204.4	201.8	198.7	196.1	193.7
37.5°	191.4	190.2	189.8	189.1	187.9	186.4	185.7	184.5	181.8	179.8	176.3
40°	171.8	172.1	171.4	170.6	170.2	169.0	168.7	166.7	164.8	162.6	161.0
42.5°	154.1	154.1	154.1	153.2	152.5	151.3	150.9	149.9	147.5	145.9	143.6
45°	138.3	137.1	137.1	136.7	136.3	135.5	134.4	133.6	132.1	131.0	128.2
47.5°	122.8	123.3	122.8	122.5	121.3	120.9	120.5	119.0	117.4	116.3	114.4
50°	109.4	110.1	109.4	109.4	108.6	108.2	107.5	106.3	105.1	103.2	101.3
52.5°	98.2	98.2	97.8	97.4	96.2	95.5	95.2	94.7	92.8	91.2	89.8
55°	87.0	87.4	87.4	86.3	85.8	85.1	84.7	83.6	82.8	80.4	79.4
57.5°	77.4	77.0	77.4	76.6	75.9	75.1	74.7	74.0	72.8	71.2	69.7
60°	68.9	68.1	68.1	67.8	67.0	66.7	65.8	64.6	63.6	62.0	60.8
62.5°	60.4	60.1	59.7	59.3	58.5	58.2	57.8	56.6	55.4	54.3	53.1
65°	52.4	52.4	51.9	51.2	50.9	50.4	50.0	49.3	47.8	47.0	45.8
67.5°	45.0	44.6	44.6	43.9	43.1	42.7	42.7	42.0	40.8	39.6	38.9
70°	37.7	38.2	37.7	37.3	36.6	36.6	35.8	35.4	33.9	33.5	32.3
72.5°	31.2	31.2	30.8	30.8	30.0	29.7	29.7	28.8	28.1	27.3	26.6
75°	25.0	25.0	25.0	24.7	24.3	23.5	23.5	23.1	22.4	21.5	20.8
77.5°	19.6	19.3	19.3	18.9	18.4	18.1	18.1	17.7	17.0	16.5	15.8
80°	14.2	13.9	13.9	13.9	13.0	13.5	13.0	12.7	12.3	12.0	11.6
82.5°	9.2	9.6	9.6	9.2	8.9	8.9	8.9	8.5	8.5	8.1	7.7
85°	5.4	5.4	5.4	5.4	5.0	5.0	5.0	4.7	4.7	4.7	4.2
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.9
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°	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8
2.5°	286.9	286.1	285.7	285.4	285.4	285.0	284.6	283.8	283.8	283.1	282.6
5°	288.5	287.3	286.6	285.7	285.4	284.6	283.8	282.6	282.3	281.2	280.0
7.5°	288.8	286.9	286.1	284.6	283.8	283.1	281.5	280.3	278.8	277.7	276.1
10°	287.3	285.7	283.8	281.9	281.5	280.3	278.1	276.5	274.6	273.0	270.8
12.5°	285.0	282.6	280.7	278.4	277.2	276.1	273.8	271.5	268.8	266.1	263.8
15°	281.2	278.4	275.8	273.0	271.5	270.4	267.6	264.9	262.3	258.8	256.5
17.5°	275.3	272.3	269.6	266.1	264.5	263.5	260.0	256.9	253.4	249.9	247.7
20°	268.0	264.2	261.1	257.2	256.0	254.1	250.7	247.2	243.4	239.5	236.9
22.5°	258.4	254.6	251.1	247.2	245.3	243.4	239.9	235.7	231.9	228.7	226.1
25°	247.2	243.8	239.5	236.0	233.8	231.5	227.5	224.1	220.6	216.1	213.3
27.5°	235.0	230.7	227.5	223.0	220.6	219.2	214.9	210.3	207.2	202.9	199.9
30°	221.1	217.3	213.8	209.1	206.8	205.3	201.5	197.1	194.0	189.8	186.7
32.5°	206.4	202.2	198.0	194.9	192.1	190.7	186.4	183.7	179.8	176.3	173.0
35°	190.7	186.4	183.3	179.1	177.5	176.0	172.5	169.0	165.5	162.6	159.8
37.5°	173.7	170.6	167.1	164.1	162.9	161.4	157.2	154.1	151.3	148.3	145.9
40°	157.2	154.4	152.1	149.0	147.1	145.9	142.9	140.2	137.1	135.1	132.9
42.5°	142.1	139.0	136.7	134.4	132.5	131.3	128.7	126.6	124.4	122.5	119.8
45°	126.3	124.7	122.1	120.2	119.0	117.4	115.5	113.2	111.3	109.8	107.8
47.5°	112.4	111.0	108.9	106.7	105.9	104.7	102.8	101.3	99.7	98.2	96.2
50°	99.7	97.8	96.2	94.7	94.0	92.8	90.9	90.1	88.9	87.4	86.3
52.5°	88.2	86.7	85.1	83.2	82.8	82.0	80.9	79.4	78.2	77.4	76.6
55°	77.8	76.2	75.1	73.5	73.1	72.4	70.9	70.1	69.3	68.6	67.8
57.5°	68.6	67.0	65.5	64.6	63.9	63.2	62.7	61.6	60.8	60.4	59.7
60°	60.1	58.5	57.3	56.3	55.8	55.4	54.7	53.9	53.1	52.4	51.9
62.5°	51.9	50.4	49.7	49.0	48.1	48.1	47.4	46.6	45.8	45.5	44.6
65°	44.6	43.9	42.7	41.5	41.2	41.2	40.1	39.6	39.3	38.5	37.7
67.5°	37.7	37.0	35.8	35.4	35.1	34.7	34.2	33.5	32.7	32.3	31.6
70°	31.6	30.8	30.0	29.7	29.3	28.8	28.1	27.8	26.9	26.6	26.2
72.5°	25.4	25.0	24.3	23.8	23.5	23.1	22.7	22.4	21.5	21.2	20.8
75°	20.5	20.0	19.3	18.9	18.4	18.4	18.1	17.4	17.0	17.0	16.5
77.5°	15.4	15.0	14.6	14.2	13.9	13.9	13.5	13.0	12.7	12.7	12.3
80°	11.1	10.8	10.4	10.4	10.4	10.1	9.6	9.6	9.2	9.2	8.9
82.5°	7.3	7.3	6.9	6.9	6.9	6.6	6.6	6.1	6.1	6.1	6.1
85°	4.2	4.2	4.2	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.8
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.6	1.6	1.6
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°	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8
2.5°	282.3	281.9	281.2	281.2	280.3	280.3	280.0	279.6	279.1	278.8	278.4
5°	279.6	278.1	277.2	276.9	276.1	275.8	274.6	273.8	273.4	272.7	271.8
7.5°	274.6	273.0	271.5	271.1	270.8	269.2	268.0	266.9	266.1	265.4	264.5
10°	268.8	267.3	265.4	264.5	263.8	261.9	260.3	259.2	257.6	256.0	255.7
12.5°	261.9	259.5	257.2	256.5	255.3	253.4	251.8	249.9	248.7	246.8	246.5
15°	253.8	251.1	249.2	247.2	246.5	244.5	241.8	240.4	238.0	237.2	235.3
17.5°	244.2	241.4	238.8	238.0	236.9	234.1	231.5	229.5	227.2	226.1	224.9
20°	234.1	230.7	228.0	227.2	225.6	223.4	220.6	218.7	216.8	214.5	213.3
22.5°	222.6	218.7	216.4	214.5	214.1	211.4	208.4	206.8	205.3	203.4	201.8
25°	209.8	206.4	203.7	202.2	201.5	199.1	196.8	194.9	192.6	191.4	189.5
27.5°	196.8	194.5	191.0	189.5	188.3	186.4	183.7	182.5	180.3	178.7	177.5
30°	184.1	180.6	178.7	176.8	175.6	173.7	171.4	170.2	168.3	166.7	165.5
32.5°	170.2	167.9	165.2	164.5	162.9	161.0	159.4	157.5	156.0	154.4	154.1
35°	157.5	154.4	151.8	150.9	149.9	147.8	147.1	145.9	144.0	143.6	142.1
37.5°	143.6	142.1	139.0	137.9	137.5	136.0	134.4	133.6	132.5	131.3	131.0
40°	130.6	128.7	127.1	125.9	125.2	124.0	122.5	122.1	121.3	119.8	119.3
42.5°	118.3	116.3	114.8	114.4	113.2	112.0	111.3	110.1	109.8	109.4	108.6
45°	106.3	105.1	103.5	103.2	102.8	101.3	100.5	99.7	99.0	98.6	97.8
47.5°	95.5	94.3	93.2	92.8	92.0	91.7	90.5	90.1	88.9	88.6	88.2
50°	85.1	84.4	83.6	83.2	82.4	82.0	81.3	80.4	79.7	79.4	79.0
52.5°	75.9	75.1	74.3	74.0	73.5	72.8	72.1	71.2	70.9	70.5	70.1
55°	67.0	66.2	65.8	65.5	65.1	64.6	63.6	63.2	62.7	62.4	61.6
57.5°	58.9	58.2	57.3	57.3	57.0	56.6	55.8	55.1	55.1	54.3	53.5
60°	51.6	50.9	50.0	49.7	49.3	48.5	48.1	47.8	47.4	47.0	46.2
62.5°	43.9	43.6	42.7	42.7	42.0	41.5	41.2	40.8	40.5	39.6	39.3
65°	37.3	37.0	36.1	35.8	35.8	35.4	34.7	34.2	33.9	33.9	33.5
67.5°	31.2	30.8	30.0	29.7	29.7	29.3	28.8	28.8	28.5	28.1	28.5
70°	25.9	25.0	25.0	24.7	24.7	24.3	23.8	23.8	23.8	24.3	24.3
72.5°	20.5	20.0	19.6	19.6	19.6	19.6	19.3	19.3	19.6	20.0	20.0
75°	16.2	15.8	15.8	15.8	15.4	15.4	15.8	15.8	16.2	16.2	16.2
77.5°	12.0	12.0	12.0	12.0	12.0	12.0	12.3	12.3	12.7	12.7	12.7
80°	8.9	8.9	8.9	8.9	8.9	9.2	9.2	9.2	9.2	9.2	9.6
82.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.6	6.6	6.6	6.6
85°	3.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	283.8	283.8	283.8	283.8	283.8	283.8	283.8	283.8
2.5°	278.1	278.1	278.1	278.4	277.7	277.7	277.7	277.7
5°	271.5	271.1	270.8	271.1	270.4	270.4	269.9	269.9
7.5°	263.5	263.0	262.6	262.6	261.9	261.9	261.5	261.1
10°	254.6	253.8	254.1	253.4	253.0	252.7	252.2	251.8
12.5°	244.9	244.2	243.8	243.0	242.3	241.8	242.3	241.4
15°	234.5	233.4	232.9	232.2	231.5	231.0	231.0	230.7
17.5°	223.0	222.2	221.8	221.1	220.6	219.9	219.5	219.2
20°	212.2	210.3	210.7	209.8	209.5	207.9	207.9	208.4
22.5°	200.3	199.1	198.3	197.5	197.1	196.4	196.4	196.1
25°	188.3	187.2	186.7	186.0	185.7	184.8	184.5	184.5
27.5°	176.8	175.2	175.2	174.4	173.7	173.3	173.0	172.5
30°	164.5	163.3	162.9	162.9	162.6	162.6	161.4	161.7
32.5°	152.9	152.1	151.8	150.9	150.9	150.6	150.6	149.4
35°	141.4	140.2	140.5	139.8	139.5	139.0	139.5	139.0
37.5°	130.1	129.4	129.4	128.7	128.7	128.2	127.8	128.7
40°	119.0	118.6	118.3	117.8	118.3	117.8	117.1	117.4
42.5°	107.8	107.8	107.5	107.5	107.0	107.0	107.0	107.0
45°	97.8	97.4	97.4	97.1	97.1	97.1	97.1	96.7
47.5°	87.9	87.4	87.4	87.4	87.0	87.0	86.7	87.0
50°	78.2	78.2	77.8	77.8	78.2	77.8	77.4	77.4
52.5°	69.3	69.3	68.9	68.9	68.6	68.1	68.6	68.6
55°	61.3	60.8	60.4	60.4	60.1	59.7	59.7	60.1
57.5°	53.5	53.1	52.8	52.8	51.9	51.6	51.6	51.6
60°	46.2	45.5	45.5	45.0	45.0	44.6	44.6	44.6
62.5°	39.3	38.9	38.9	38.9	38.9	38.5	38.5	38.5
65°	33.5	33.5	33.5	33.9	33.9	34.2	34.2	34.2
67.5°	28.8	29.3	29.3	29.3	29.7	29.7	29.7	29.3
70°	24.7	24.7	24.7	25.0	25.0	25.0	25.0	25.0
72.5°	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
75°	16.2	16.5	16.5	16.5	16.2	16.5	16.5	16.2
77.5°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
80°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
82.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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)