

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: P583488

Luminaire Tested: **HC805D010-HM80520840-81WWBB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583488
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: HC805D010-HM80520840-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 657.1 lumens
Efficiency: N/A
Efficacy: 109.5 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

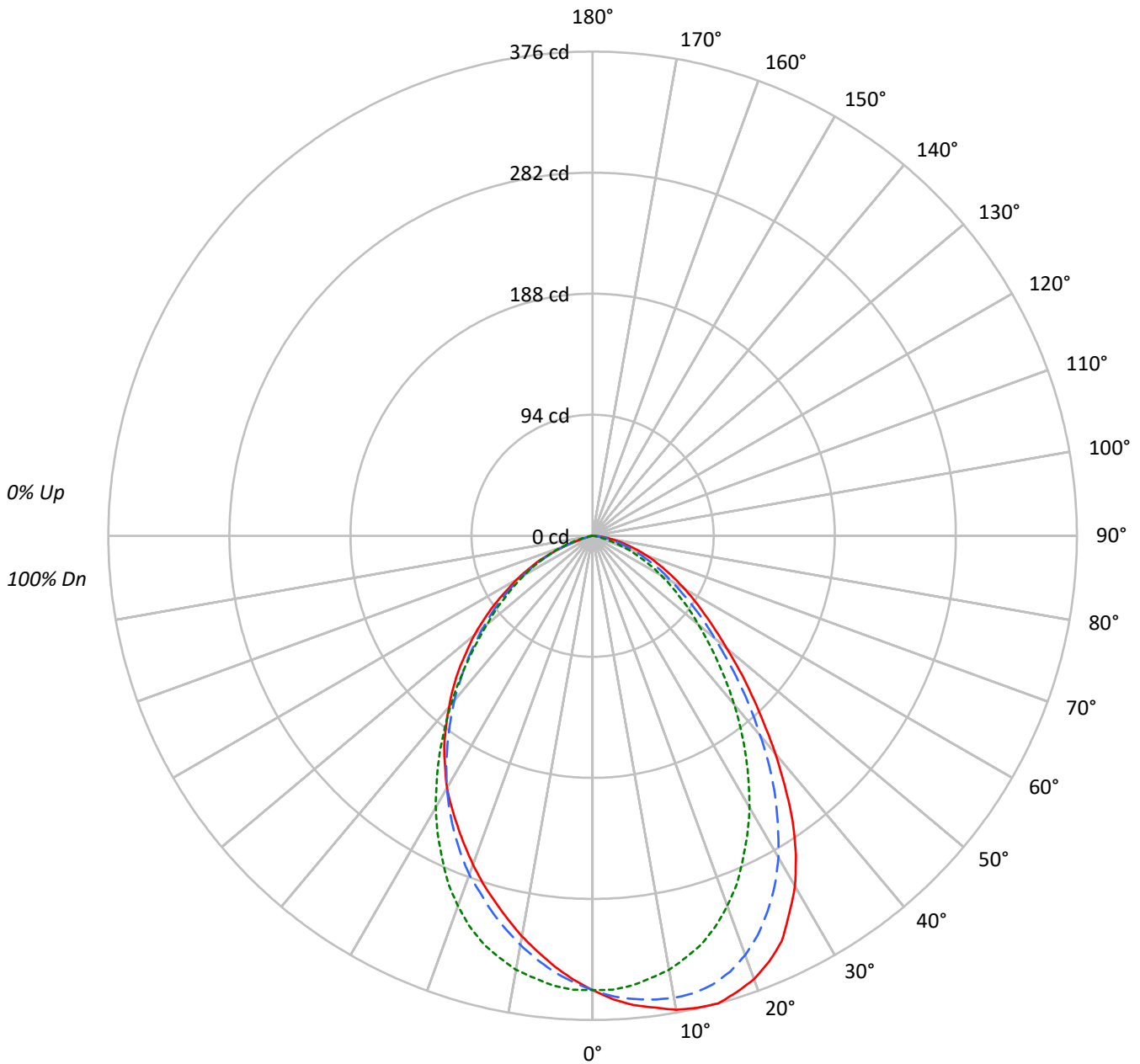
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	10879	10879	10879
5°	11326	10853	10397
10°	11704	10715	9891
15°	12003	10471	9376
20°	12024	10035	8913
25°	11823	9401	8452
30°	11188	8674	8054
35°	10202	7800	7563
40°	8872	6875	6980
45°	7610	5957	6393
50°	6500	5133	5742
55°	5693	4419	4989
60°	5069	3774	4194
65°	4495	3072	3342
70°	3994	2281	1902
75°	3324	1203	572
80°	2610	391	89
85°	1875	177	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.2	5.1
10°-20°	93.2	14.2
20°-30°	131.9	20.1
30°-40°	137.9	21.0
40°-50°	115.1	17.5
50°-60°	81.6	12.4
60°-70°	47.0	7.2
70°-80°	15.1	2.3
80°-90°	2.1	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°	258.3	39.3
0°-40°	396.2	60.3
0°-60°	592.9	90.2
0°-90°	657.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	657.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	353	353	353	353	353	
5°	366	361	351	340	336	35
15°	376	361	328	302	294	106
25°	348	322	276	254	248	159
35°	271	247	207	196	201	168
45°	174	160	137	138	147	135
55°	106	95	82	86	93	96
65°	62	52	42	42	46	62
75°	28	21	10	5	5	30
85°	5	3	0	0	0	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°	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8
2.5°	360.2	359.6	359.1	359.6	359.1	359.6	359.1	359.1	358.5	358.0	358.0
5°	365.9	365.4	365.4	365.4	364.8	364.4	364.4	363.8	362.8	362.2	361.1
7.5°	369.6	370.1	370.1	370.1	369.0	369.0	368.1	367.0	365.9	364.8	363.3
10°	373.8	373.8	373.3	372.7	371.7	371.2	370.7	369.6	368.1	365.9	364.4
12.5°	375.4	375.4	374.9	373.8	373.3	372.7	372.3	370.7	368.6	365.9	363.8
15°	376.0	374.9	374.4	373.8	372.7	371.2	371.2	369.0	366.4	363.3	360.7
17.5°	371.7	372.3	371.2	370.1	368.6	367.5	365.9	364.4	361.1	357.5	354.9
20°	366.4	365.9	365.4	363.8	361.7	361.1	359.6	356.9	354.3	350.1	346.4
22.5°	358.0	357.5	356.5	355.4	353.2	352.3	350.6	347.5	343.8	339.6	335.4
25°	347.5	346.4	344.9	342.7	341.1	340.1	338.0	334.8	330.6	325.8	321.6
27.5°	330.6	332.2	331.1	328.0	326.4	324.3	323.8	319.5	315.9	311.1	306.3
30°	314.2	314.2	312.7	311.1	308.5	306.9	304.8	301.6	297.9	292.1	288.5
32.5°	293.7	293.1	291.1	290.5	288.5	285.2	284.8	280.5	276.9	272.6	267.9
35°	271.0	269.9	267.9	266.2	265.3	263.6	262.0	258.3	254.7	250.4	247.3
37.5°	245.1	245.1	244.7	242.0	241.0	239.9	238.3	234.6	232.6	228.3	225.2
40°	220.4	219.9	218.3	217.7	216.7	215.1	214.0	212.0	208.8	205.6	202.4
42.5°	196.2	196.7	194.5	195.1	193.0	191.9	191.4	188.3	186.6	183.5	180.9
45°	174.5	174.0	173.0	172.4	171.4	170.3	169.3	167.7	165.1	161.8	160.3
47.5°	154.5	152.9	152.9	152.4	151.9	149.7	149.3	147.6	146.0	142.9	140.8
50°	135.5	135.5	135.5	135.0	133.3	132.9	131.8	130.2	128.7	126.5	123.4
52.5°	120.2	120.2	120.2	119.7	117.5	117.1	116.5	114.4	112.3	110.7	108.6
55°	105.9	106.5	105.9	105.0	103.3	103.3	101.7	100.7	98.6	97.1	94.9
57.5°	93.8	93.8	92.8	92.3	91.2	90.7	89.7	88.6	85.9	84.4	81.8
60°	82.2	81.8	81.8	80.7	79.6	78.5	78.0	76.5	75.4	72.8	70.6
62.5°	71.7	71.7	70.6	70.6	68.6	68.6	68.0	66.4	64.9	62.2	61.2
65°	61.6	61.6	61.2	60.7	59.0	58.5	58.1	56.4	54.8	53.3	51.7
67.5°	52.7	52.7	51.7	51.1	50.0	49.6	48.5	47.4	45.8	44.3	42.7
70°	44.3	43.8	43.2	42.7	41.7	41.2	40.1	39.0	37.5	36.4	34.8
72.5°	35.9	35.9	35.3	34.2	33.8	33.3	32.7	31.6	30.0	28.5	27.4
75°	27.9	27.9	27.9	26.9	25.9	25.3	25.3	24.3	23.2	21.7	20.6
77.5°	21.7	21.1	20.6	20.6	19.5	19.0	18.4	18.0	16.4	15.8	14.7
80°	14.7	15.3	14.7	14.2	13.8	13.2	13.2	12.1	11.6	10.5	9.5
82.5°	10.1	9.5	9.5	9.0	9.0	8.4	8.4	7.4	6.8	6.3	5.7
85°	5.3	5.3	4.8	4.8	4.8	4.2	4.2	3.7	3.7	3.1	2.6
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8
2.5°	357.5	356.5	355.9	355.9	355.4	354.9	354.3	353.8	352.8	352.8	351.7
5°	360.2	359.1	358.5	356.9	355.9	355.9	353.8	353.2	351.7	350.6	349.5
7.5°	362.2	360.2	358.5	356.9	355.9	354.9	352.8	350.6	348.6	346.4	345.3
10°	362.2	360.2	357.5	354.9	353.8	352.8	350.1	346.9	344.3	342.2	339.6
12.5°	361.1	358.0	354.9	352.8	350.6	349.0	345.9	342.7	339.6	335.4	333.2
15°	358.0	353.8	350.6	346.9	345.3	342.7	340.1	335.4	331.7	328.0	325.3
17.5°	351.7	346.4	342.7	339.0	336.4	334.8	330.6	326.4	322.1	317.9	314.8
20°	342.2	337.4	333.2	328.5	326.4	324.3	319.0	314.8	310.6	305.8	302.6
22.5°	330.6	325.8	320.1	316.4	313.3	310.6	305.8	301.0	296.9	292.7	288.5
25°	316.4	311.6	306.3	300.6	298.4	295.8	290.5	285.7	281.1	276.3	272.6
27.5°	301.0	294.7	290.5	284.2	282.1	279.5	273.6	268.4	264.2	260.5	256.3
30°	282.6	277.8	272.1	266.2	264.2	261.5	256.8	252.1	247.8	243.6	239.4
32.5°	262.6	257.8	252.1	247.8	244.7	242.5	237.8	233.5	229.3	225.2	221.4
35°	241.4	236.2	232.0	227.8	225.2	222.5	217.7	214.0	210.9	207.2	203.5
37.5°	219.9	216.2	212.0	207.2	204.6	202.4	198.8	194.5	191.9	188.8	186.1
40°	198.8	194.5	190.9	186.6	184.6	183.0	179.3	176.1	173.4	170.8	169.3
42.5°	177.2	173.4	169.7	167.1	165.5	164.0	161.4	157.6	156.1	153.5	151.9
45°	157.2	153.9	151.3	147.6	146.6	145.6	142.3	139.7	138.1	136.6	135.5
47.5°	138.1	136.0	132.9	130.7	129.2	128.1	126.0	123.9	122.3	121.3	120.2
50°	121.9	119.2	117.1	114.9	113.8	112.3	110.2	109.2	108.1	107.0	107.0
52.5°	106.5	103.9	101.7	100.2	99.1	98.0	96.5	96.0	94.9	94.9	94.3
55°	92.3	90.7	88.6	86.4	85.9	85.5	84.4	83.3	82.8	82.2	82.8
57.5°	80.2	78.5	76.5	74.9	74.3	73.9	73.3	72.2	71.7	71.7	71.7
60°	69.1	67.5	66.0	64.3	64.3	63.3	62.7	62.2	61.6	61.2	61.2
62.5°	59.0	57.5	55.9	54.8	54.3	53.7	52.7	52.2	51.7	51.7	51.1
65°	50.0	48.0	47.4	45.8	45.4	44.8	44.3	43.2	42.7	42.1	41.7
67.5°	41.2	40.1	38.5	37.5	36.9	36.4	35.9	34.8	34.2	33.8	32.7
70°	33.3	32.2	31.1	30.0	29.6	29.0	27.9	26.9	26.3	25.3	23.7
72.5°	25.9	24.8	23.7	22.6	22.1	21.7	20.6	19.5	18.4	17.4	16.4
75°	19.5	18.4	16.9	15.8	15.3	15.3	13.8	12.7	11.6	10.1	9.0
77.5°	13.8	12.1	11.6	10.5	10.1	9.0	7.9	6.8	5.7	5.3	4.2
80°	9.0	7.9	6.8	6.3	5.7	5.3	4.8	3.7	2.6	2.2	1.6
82.5°	5.3	4.8	4.2	3.7	3.1	2.6	2.2	2.2	1.6	1.1	0.5
85°	2.6	2.2	1.6	1.6	1.1	1.1	1.1	0.5	0.5	0.5	0.5
87.5°	1.1	0.5	0.5	0.5	0.5	0.5	0.5	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8
2.5°	351.2	350.6	350.1	349.5	349.5	348.6	348.6	348.0	346.9	346.4	346.4
5°	348.0	346.4	345.3	344.9	344.3	342.7	342.2	341.1	340.1	339.0	338.5
7.5°	343.3	340.7	339.6	339.0	337.4	335.9	334.8	333.2	331.7	330.0	329.5
10°	337.4	334.8	332.2	331.1	329.5	328.5	326.4	324.3	322.7	321.2	319.5
12.5°	330.0	326.9	324.3	323.2	321.6	319.5	316.4	315.3	312.7	311.6	309.5
15°	321.6	317.9	315.3	313.7	312.2	308.9	306.9	304.8	302.1	301.0	299.0
17.5°	311.1	306.9	304.3	302.6	301.6	299.0	295.8	293.1	290.5	289.4	287.9
20°	298.4	295.8	292.1	290.5	289.4	286.3	283.1	282.1	280.0	277.8	276.3
22.5°	284.2	281.5	277.8	276.3	275.8	273.2	270.5	269.0	267.3	265.7	264.2
25°	269.4	266.2	263.1	262.0	260.9	258.9	256.8	255.7	254.1	253.0	252.1
27.5°	253.6	250.4	247.8	246.2	245.1	243.6	242.5	241.4	240.5	239.4	238.8
30°	236.8	233.5	231.5	230.4	229.3	228.9	227.3	226.7	226.2	225.2	225.6
32.5°	219.9	217.3	215.1	213.5	213.5	212.5	212.0	212.0	211.4	211.4	211.4
35°	201.5	199.8	198.2	197.7	197.1	196.7	196.2	196.7	196.2	196.7	197.1
37.5°	184.6	183.0	181.9	181.3	180.9	181.3	180.9	180.9	181.3	182.4	183.0
40°	167.1	166.1	165.1	165.5	165.1	165.1	165.1	166.6	167.1	167.7	168.2
42.5°	150.8	149.7	149.3	149.3	149.7	149.3	150.2	150.8	151.9	153.5	154.5
45°	135.0	134.4	134.4	135.0	134.4	135.5	135.5	136.6	138.1	139.2	140.3
47.5°	120.2	120.2	120.2	120.8	120.8	121.3	122.3	122.8	123.9	125.0	126.0
50°	106.5	107.0	107.6	107.6	107.6	108.6	109.6	110.2	110.7	111.2	112.9
52.5°	94.3	94.9	94.9	95.4	96.0	96.5	97.1	98.0	98.6	99.7	100.2
55°	82.8	82.8	83.8	84.4	84.4	84.4	85.5	85.5	86.4	87.0	88.1
57.5°	71.7	72.2	72.2	72.8	72.8	73.3	73.9	74.3	74.9	75.4	75.9
60°	61.2	61.2	61.2	61.6	62.2	62.7	62.2	63.3	63.3	64.3	64.9
62.5°	51.1	51.7	51.7	51.7	51.7	51.7	51.7	52.2	52.7	53.3	53.7
65°	41.7	41.7	41.7	41.2	41.7	41.2	41.7	42.1	42.1	42.7	43.2
67.5°	32.2	32.2	31.1	31.1	31.6	31.6	31.6	31.6	31.1	32.2	32.2
70°	23.2	22.6	22.1	21.7	21.7	21.1	21.1	20.6	20.6	20.6	20.6
72.5°	15.3	14.2	13.2	12.7	12.1	12.1	11.1	10.5	11.1	11.1	11.1
75°	7.9	6.8	6.3	5.7	5.3	5.3	4.8	4.8	4.8	4.8	4.8
77.5°	3.1	2.6	2.2	2.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.1	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.0	0.0	0.5	0.0	0.5	0.5	0.5	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: P583488

CATALOG NUMBER: HC805D010-HM80520840-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	352.8	352.8	352.8	352.8	352.8	352.8	352.8	352.8
2.5°	345.9	345.9	345.3	345.9	344.9	345.3	344.9	344.9
5°	338.0	337.0	337.0	337.0	336.4	336.4	335.9	335.9
7.5°	328.5	328.0	327.4	326.9	326.4	325.8	325.8	325.8
10°	319.0	317.9	317.9	317.4	316.4	315.9	315.9	315.9
12.5°	307.9	307.4	306.9	306.9	304.8	305.2	304.8	304.8
15°	297.3	296.9	296.9	295.3	294.2	294.2	294.2	293.7
17.5°	286.3	285.7	285.2	284.2	283.1	283.1	282.6	283.1
20°	274.7	274.2	273.2	273.2	272.6	272.1	271.0	271.6
22.5°	263.1	262.0	261.5	261.5	260.9	260.9	260.0	260.0
25°	251.0	250.4	249.9	250.4	249.5	249.5	248.4	248.4
27.5°	238.3	237.8	237.8	237.8	237.2	237.8	237.2	237.2
30°	225.6	225.6	225.2	225.2	225.6	225.2	225.6	226.2
32.5°	212.0	212.0	212.5	212.5	213.1	213.1	213.1	213.1
35°	197.7	198.8	198.8	199.3	199.8	200.4	200.4	200.9
37.5°	184.6	185.1	185.7	186.1	187.2	187.2	187.2	187.2
40°	170.3	170.8	171.9	171.4	173.4	174.0	173.4	173.4
42.5°	155.5	156.6	157.2	158.1	158.7	159.8	160.3	160.3
45°	141.8	142.3	143.4	144.5	145.0	146.6	146.6	146.6
47.5°	127.6	128.7	129.2	130.2	130.7	132.4	132.9	132.4
50°	113.8	114.9	116.0	116.0	117.5	118.1	119.2	119.7
52.5°	100.7	101.3	102.3	102.8	103.9	105.0	105.5	105.9
55°	88.1	88.6	89.7	89.7	91.2	91.7	92.8	92.8
57.5°	76.5	77.0	78.0	77.6	78.5	79.6	79.6	79.1
60°	65.4	65.4	65.4	66.4	66.9	67.5	68.0	68.0
62.5°	53.7	54.8	55.4	55.4	55.9	56.4	56.4	55.9
65°	43.2	44.3	44.8	44.8	45.4	45.4	45.4	45.8
67.5°	32.7	32.7	32.7	33.3	32.7	32.7	32.7	32.7
70°	20.6	20.6	20.6	20.6	20.0	20.6	20.6	21.1
72.5°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
75°	4.8	4.8	4.8	5.3	4.8	4.8	4.8	4.8
77.5°	2.2	1.6	2.2	2.2	1.6	1.6	1.6	1.6
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.0	0.5	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)