

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: P583490

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583490
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-HM80520840-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 746.7 lumens
Efficiency: N/A
Efficacy: 124.4 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

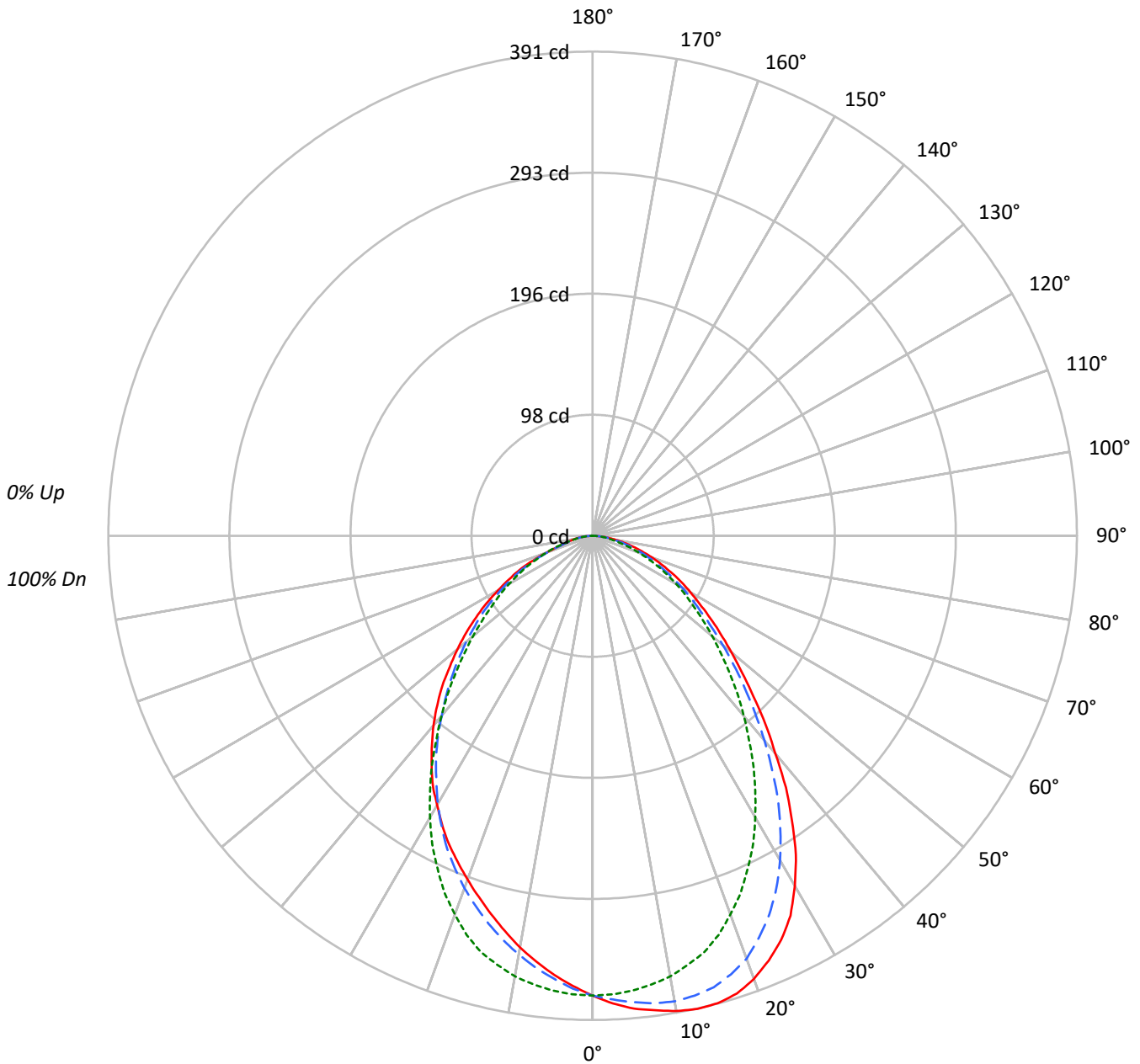
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583490

CATALOG NUMBER: HC805D010-HM80520840-81WWWB

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°	11450	11450	11450
5°	11868	11413	11020
10°	12202	11313	10571
15°	12476	11113	10101
20°	12496	10675	9690
25°	12255	10085	9346
30°	11622	9350	8937
35°	10563	8515	8534
40°	9230	7640	8047
45°	8002	6807	7496
50°	7004	6045	6831
55°	6236	5360	6177
60°	5625	4810	5433
65°	5086	4239	4735
70°	4562	3561	3516
75°	4027	2824	2633
80°	3374	2344	2522
85°	2618	2017	2229



TEST NUMBER: P583490

CATALOG NUMBER: HC805D010-HM80520840-81WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.0	4.7
10°-20°	98.6	13.2
20°-30°	141.0	18.9
30°-40°	149.8	20.1
40°-50°	129.0	17.3
50°-60°	96.4	12.9
60°-70°	61.5	8.2
70°-80°	28.0	3.7
80°-90°	7.3	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°	274.7	36.8
0°-40°	424.5	56.8
0°-60°	649.9	87.0
0°-90°	746.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	746.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	371	371	371	371	371	
5°	383	378	369	359	356	37
15°	391	378	348	324	316	110
25°	360	338	296	278	275	165
35°	281	261	226	220	227	175
45°	184	173	156	160	172	143
55°	116	106	100	108	115	104
65°	70	62	58	61	65	69
75°	34	29	24	22	22	36
85°	7	6	6	6	6	9
90°	0	0	0	0	0	



TEST NUMBER: P583490

CATALOG NUMBER: HC805D010-HM80520840-81WWWB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3
2.5°	378.1	377.1	377.5	377.1	377.5	377.5	376.6	376.6	376.6	376.6	374.9
5°	383.4	382.9	382.9	382.3	381.8	382.3	381.8	381.2	380.3	379.7	378.1
7.5°	386.5	386.5	386.5	386.5	386.0	385.6	385.0	383.9	382.9	381.8	380.8
10°	389.7	390.2	389.7	389.1	388.7	387.6	387.1	386.0	384.5	382.9	381.8
12.5°	391.3	391.3	390.8	390.8	389.7	389.1	387.6	386.0	384.5	382.9	380.3
15°	390.8	390.8	390.2	389.7	388.2	387.6	386.5	385.0	382.3	380.3	377.5
17.5°	387.6	387.1	386.0	386.0	383.9	383.4	382.3	380.3	377.5	374.4	371.3
20°	380.8	380.8	380.3	379.7	377.5	376.0	374.9	372.3	370.2	366.5	363.4
22.5°	371.3	372.3	371.3	370.2	367.6	367.0	365.4	362.3	359.1	354.9	351.2
25°	360.2	359.7	359.1	358.0	356.0	354.9	352.8	349.6	346.5	341.7	337.6
27.5°	345.9	343.9	343.9	341.7	340.2	338.5	337.6	334.3	330.1	326.4	321.2
30°	326.4	327.0	324.4	323.8	321.2	320.1	318.0	314.8	311.1	306.9	302.7
32.5°	305.4	303.8	303.8	301.6	299.5	297.9	297.5	293.7	290.6	286.3	282.1
35°	280.6	280.6	279.0	278.4	276.4	275.3	273.8	271.6	267.9	264.2	261.1
37.5°	256.3	255.2	254.7	253.6	252.1	250.5	250.5	246.8	246.2	242.0	237.8
40°	229.3	230.4	229.3	227.8	227.3	226.2	225.8	223.6	222.0	218.3	215.7
42.5°	206.7	205.6	205.6	205.2	203.0	203.0	201.9	201.0	198.3	197.3	194.0
45°	183.5	184.6	183.0	183.5	181.5	181.5	181.5	179.3	177.2	175.6	173.4
47.5°	163.5	164.0	164.0	162.4	162.0	162.0	160.9	159.8	158.2	156.1	154.5
50°	146.0	146.6	145.6	145.1	144.0	143.4	143.4	141.4	140.3	138.1	137.1
52.5°	130.2	130.2	129.8	129.8	128.2	128.2	127.1	125.6	124.5	123.4	120.8
55°	116.0	116.0	115.5	114.9	114.9	113.4	112.9	111.3	110.2	108.1	106.5
57.5°	102.3	102.8	102.3	101.7	101.3	100.7	99.7	98.0	97.1	95.4	94.4
60°	91.2	91.2	90.7	90.1	89.2	88.6	88.1	87.0	85.5	84.4	82.8
62.5°	80.7	80.2	79.6	79.1	78.0	78.0	77.0	75.9	74.3	73.3	72.3
65°	69.7	69.7	69.1	69.1	68.6	67.5	67.0	66.4	64.3	63.8	61.6
67.5°	59.6	60.1	59.0	59.0	58.1	58.1	57.5	55.9	55.4	54.3	53.3
70°	50.6	50.6	50.6	50.2	49.1	48.5	48.0	46.9	46.4	45.4	44.3
72.5°	41.7	41.7	41.2	41.2	40.6	40.1	39.5	38.5	38.5	37.5	36.4
75°	33.8	33.8	33.3	32.7	32.2	32.2	31.6	31.1	30.0	29.6	29.0
77.5°	25.9	25.9	25.9	25.3	24.8	24.8	24.8	23.7	22.6	22.6	22.1
80°	19.0	19.0	18.4	18.4	18.0	18.0	18.0	17.4	16.9	16.4	15.8
82.5°	12.7	12.7	12.7	12.7	12.1	12.1	12.1	11.6	11.1	11.1	11.1
85°	7.4	7.4	7.4	7.4	6.8	6.8	6.8	6.8	6.8	6.3	6.3
87.5°	3.1	2.6	3.1	2.6	3.1	2.6	3.1	2.6	2.6	2.6	2.6
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: P583490

CATALOG NUMBER: HC805D010-HM80520840-81WWWB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3
2.5°	375.5	374.9	374.4	373.9	373.9	373.3	372.3	371.8	371.3	370.7	370.7
5°	377.5	377.1	376.0	374.9	374.4	373.3	372.3	371.3	370.2	368.7	368.1
7.5°	379.2	377.5	376.6	374.4	373.9	372.9	371.3	369.6	367.6	365.4	363.9
10°	379.2	377.1	375.5	372.9	371.8	370.7	368.7	366.0	363.4	361.3	358.6
12.5°	378.1	375.5	372.9	370.2	368.7	367.0	363.9	361.3	358.0	354.9	352.8
15°	374.4	371.3	368.1	365.0	363.4	361.3	358.0	354.4	351.2	348.1	344.4
17.5°	367.6	364.4	360.7	357.1	354.9	353.4	348.6	345.9	341.1	338.0	334.9
20°	358.6	354.9	350.1	346.5	343.9	342.2	338.5	333.8	330.1	325.3	322.2
22.5°	347.0	342.2	337.6	333.8	331.2	329.1	324.4	319.6	316.4	312.2	308.5
25°	333.2	328.6	323.8	318.5	315.9	313.7	309.5	305.4	301.2	296.4	293.3
27.5°	317.0	311.7	307.5	302.7	300.1	296.9	292.2	288.0	283.7	280.6	276.4
30°	299.0	293.3	289.0	284.3	281.7	279.0	274.2	270.0	266.3	262.6	260.5
32.5°	277.3	273.2	269.0	264.2	262.1	260.5	255.8	251.6	247.3	244.2	242.6
35°	256.9	252.1	248.4	244.2	241.6	240.0	235.7	232.1	229.9	226.2	224.1
37.5°	235.2	231.5	227.3	223.1	221.4	219.9	216.8	213.1	209.8	207.2	206.2
40°	212.5	209.4	205.6	203.0	201.5	199.9	197.3	194.6	192.5	189.8	188.8
42.5°	190.9	188.8	185.7	182.4	180.9	180.4	177.2	175.1	174.0	173.0	171.9
45°	171.4	168.2	166.1	164.0	162.4	161.4	159.8	158.2	157.2	156.1	155.0
47.5°	152.4	149.7	147.7	146.0	144.5	144.0	142.9	141.4	140.3	140.3	140.3
50°	135.0	132.9	130.8	129.8	129.2	128.2	127.1	126.5	126.0	126.0	126.0
52.5°	119.7	117.5	116.0	114.9	114.9	114.0	112.9	112.3	112.3	112.3	112.3
55°	105.5	103.9	102.8	101.7	100.7	100.2	100.2	100.2	99.7	99.7	100.2
57.5°	92.8	91.8	90.1	89.2	88.6	88.6	88.1	87.5	88.1	88.6	89.2
60°	81.2	80.2	79.6	78.0	78.0	78.0	77.6	77.6	77.6	78.0	78.5
62.5°	70.6	70.1	69.1	68.6	68.0	68.0	67.5	67.5	67.5	67.5	68.0
65°	61.2	60.1	59.0	59.0	59.0	58.5	58.5	57.5	58.1	58.1	57.5
67.5°	52.2	51.1	50.6	50.2	49.6	49.6	49.1	48.5	48.0	48.0	48.0
70°	43.8	42.7	42.7	41.7	41.7	41.2	40.6	40.6	40.1	39.5	39.0
72.5°	35.3	34.8	34.2	33.8	33.8	33.8	33.3	32.7	32.2	31.6	30.6
75°	28.0	28.0	26.9	26.3	26.3	25.9	25.3	24.8	24.3	23.7	23.2
77.5°	21.7	21.1	20.0	19.5	19.5	19.5	19.0	18.4	18.0	17.4	16.9
80°	15.8	15.3	14.7	14.2	14.2	14.2	13.8	13.8	13.2	13.2	13.2
82.5°	10.5	10.5	10.1	10.1	10.1	10.1	9.5	9.5	9.5	9.5	9.5
85°	6.3	6.3	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P583490

CATALOG NUMBER: HC805D010-HM80520840-81WWWB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3
2.5°	369.6	369.6	368.7	368.1	367.6	368.1	367.0	366.5	366.0	366.0	365.4
5°	366.5	366.0	363.9	363.4	362.8	362.3	361.3	360.2	359.1	358.6	358.0
7.5°	362.3	360.7	358.6	358.0	357.5	356.0	354.4	353.4	351.8	351.2	350.1
10°	356.5	354.4	352.8	351.2	350.1	348.6	347.0	345.5	343.3	342.8	341.1
12.5°	349.6	347.0	343.9	343.3	341.7	339.6	337.6	335.9	334.3	333.2	331.7
15°	341.1	338.5	335.4	333.8	332.3	330.6	328.0	325.9	324.4	322.7	321.2
17.5°	331.2	328.0	325.3	323.8	322.7	320.1	318.0	315.4	313.7	312.2	310.6
20°	319.0	316.4	312.8	311.1	310.6	308.5	305.8	304.8	302.7	301.2	300.1
22.5°	305.4	302.7	299.5	298.5	296.4	295.3	292.7	291.6	290.6	289.0	288.5
25°	290.0	287.4	284.8	284.3	282.6	281.7	280.0	278.4	278.4	276.9	276.9
27.5°	274.2	271.6	269.4	268.4	267.9	266.8	265.3	264.8	264.2	263.7	263.7
30°	257.4	254.2	253.2	252.6	252.1	251.0	250.5	249.5	249.9	250.5	249.9
32.5°	239.4	238.3	236.3	235.2	235.7	235.2	234.1	235.2	234.7	235.7	236.3
35°	222.0	221.0	219.9	219.9	218.8	218.8	218.8	219.4	220.5	221.0	222.0
37.5°	205.2	203.6	203.0	202.5	203.0	203.0	203.0	204.1	205.2	206.2	207.8
40°	187.2	186.1	186.1	186.1	186.1	187.7	187.2	188.3	189.4	190.9	192.5
42.5°	170.3	170.3	170.8	170.8	170.8	170.8	171.9	173.4	175.1	176.7	178.2
45°	154.5	154.5	154.5	155.6	155.6	156.1	158.2	159.3	160.3	162.0	163.5
47.5°	139.8	139.8	140.3	140.8	141.4	142.4	143.4	145.1	146.6	147.7	149.3
50°	126.0	126.5	127.6	128.7	128.7	129.2	130.8	131.8	132.9	134.4	135.0
52.5°	112.9	114.0	114.9	115.5	116.0	117.1	117.5	119.2	119.7	121.3	121.9
55°	100.7	101.3	102.8	103.4	103.4	104.4	105.5	106.5	108.1	108.1	109.2
57.5°	89.7	90.1	91.2	91.8	91.2	92.8	93.4	94.4	94.9	96.0	96.5
60°	78.5	79.6	80.2	80.2	80.7	81.2	82.2	82.2	83.3	84.4	84.4
62.5°	68.0	68.6	69.1	69.7	70.1	69.7	71.2	71.2	72.3	72.8	73.9
65°	58.1	58.5	58.5	59.0	59.0	59.6	59.6	60.1	60.7	61.6	62.2
67.5°	48.0	48.0	48.0	48.5	48.0	48.5	48.5	49.1	49.1	50.2	50.6
70°	39.0	38.5	37.9	37.9	37.9	37.9	37.5	37.9	37.9	38.5	38.5
72.5°	30.0	29.6	29.0	28.5	28.5	28.0	27.4	28.0	28.0	28.5	28.5
75°	22.6	21.7	21.7	21.7	21.1	21.1	21.1	21.7	21.7	21.7	22.1
77.5°	16.9	16.9	16.4	16.4	16.4	16.9	16.9	17.4	17.4	17.4	17.4
80°	12.7	13.2	13.2	13.2	13.2	13.8	13.8	13.8	13.8	14.2	14.2
82.5°	9.5	9.5	9.5	9.5	10.1	10.1	10.1	10.1	10.1	10.1	10.1
85°	5.7	6.3	6.3	5.7	6.3	6.3	6.3	6.3	6.3	6.3	6.3
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P583490

CATALOG NUMBER: HC805D010-HM80520840-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3
2.5°	365.0	365.0	365.0	365.0	364.4	364.4	364.4	363.9
5°	357.1	357.1	357.1	356.0	356.5	356.5	355.4	356.0
7.5°	349.2	348.6	348.1	348.1	347.5	347.0	346.5	347.0
10°	340.2	338.5	338.5	338.0	338.0	337.0	337.0	337.6
12.5°	330.1	329.1	329.1	328.6	328.0	327.5	327.0	327.0
15°	320.1	319.0	318.5	318.0	317.4	316.4	317.0	316.4
17.5°	310.1	308.5	308.5	308.0	307.5	306.4	306.4	305.8
20°	298.5	297.9	296.9	297.5	296.9	295.9	295.3	295.3
22.5°	286.9	286.9	286.3	286.3	285.8	285.2	284.8	284.8
25°	275.8	275.3	275.8	275.8	274.2	274.2	274.2	274.7
27.5°	263.1	263.7	263.1	263.1	263.1	263.1	263.7	263.1
30°	250.5	250.5	250.5	251.0	252.1	251.6	251.6	251.0
32.5°	236.8	237.4	237.4	237.8	238.3	239.4	239.4	240.0
35°	223.1	224.1	224.7	224.1	225.8	225.8	226.7	226.7
37.5°	208.9	209.4	210.4	210.9	212.0	212.5	213.1	213.1
40°	193.6	195.7	196.2	196.7	198.3	198.3	198.8	199.9
42.5°	179.3	181.5	181.9	182.4	183.5	185.1	184.6	185.7
45°	165.5	167.2	167.7	168.2	169.9	170.3	170.3	171.9
47.5°	150.8	151.9	152.4	153.5	154.5	155.6	156.6	156.1
50°	136.1	137.7	138.7	139.2	140.8	141.4	141.8	142.4
52.5°	122.9	123.9	124.5	125.0	126.5	127.1	127.6	128.7
55°	110.2	110.7	111.8	111.3	112.9	113.4	114.0	114.9
57.5°	97.6	98.0	98.6	98.6	99.7	100.7	101.3	101.7
60°	85.5	86.5	87.0	87.0	87.0	88.1	88.1	88.1
62.5°	74.3	74.3	74.9	74.9	75.9	75.9	75.9	75.9
65°	62.7	63.3	63.8	63.8	64.9	64.3	65.4	64.9
67.5°	50.6	50.6	51.7	51.7	51.1	51.7	51.7	51.7
70°	38.5	38.5	39.0	39.0	39.0	39.0	39.0	39.0
72.5°	28.5	28.5	28.5	29.0	28.5	28.5	29.0	28.5
75°	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
77.5°	17.4	17.4	18.0	18.0	18.0	18.0	18.0	18.0
80°	14.2	14.2	14.2	14.2	14.7	14.2	14.2	14.2
82.5°	10.5	10.1	10.5	10.1	10.5	10.5	10.5	10.5
85°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)