

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: P583541

Luminaire Tested: **HC805D010-HM80520935-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583541
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-HM80520935-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 637.8 lumens
Efficiency: N/A
Efficacy: 106.3 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

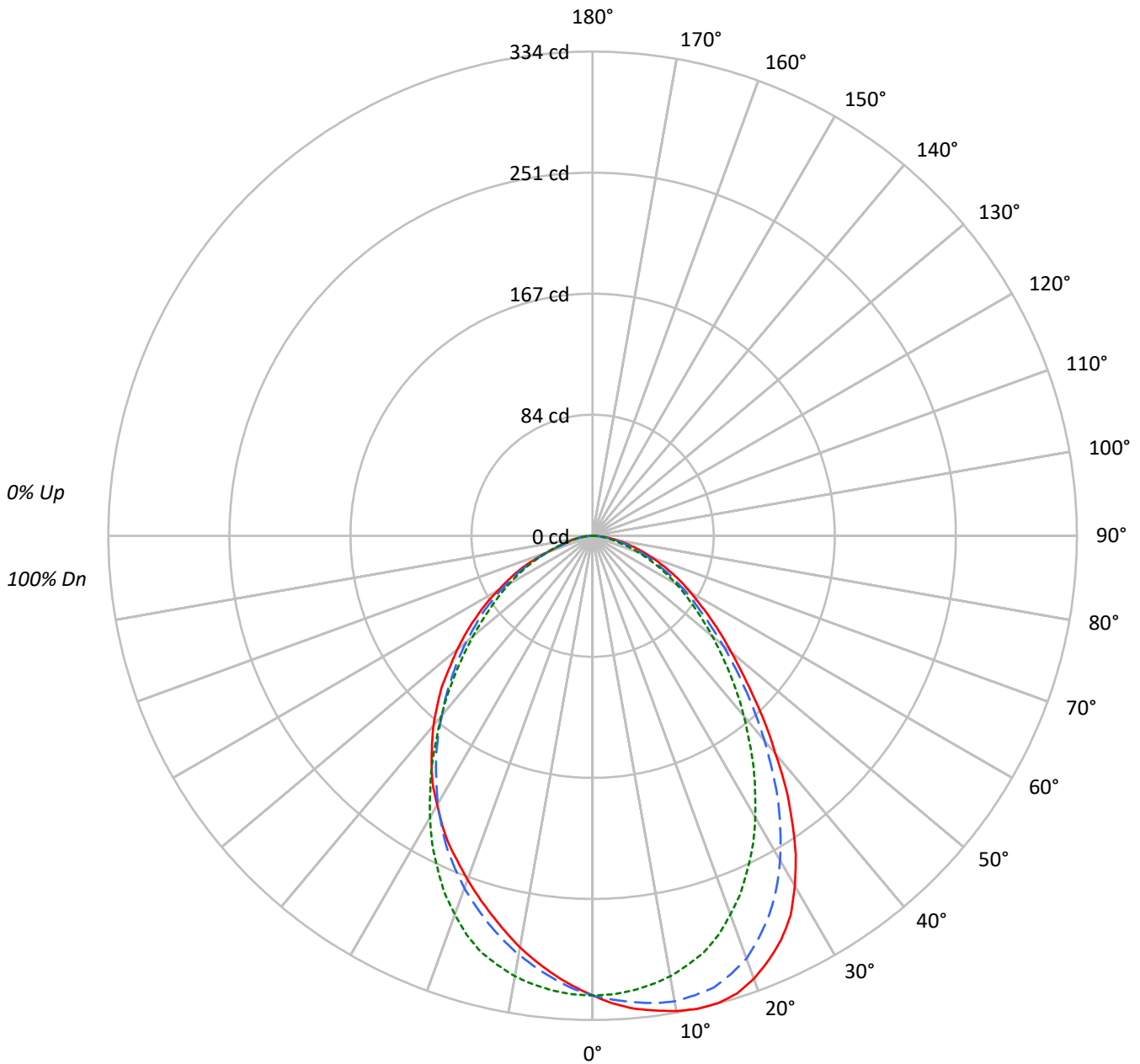
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9778	9778	9778
5°	10137	9747	9410
10°	10424	9663	9030
15°	10656	9491	8629
20°	10672	9119	8279
25°	10466	8615	7985
30°	9931	7987	7634
35°	9020	7277	7292
40°	7886	6529	6871
45°	6838	5813	6406
50°	5982	5162	5833
55°	5328	4575	5279
60°	4804	4114	4638
65°	4341	3619	4042
70°	3895	3047	3002
75°	3431	2407	2252
80°	2877	2007	2166
85°	2229	1734	1911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.9	4.7
10°-20°	84.3	13.2
20°-30°	120.4	18.9
30°-40°	128.0	20.1
40°-50°	110.2	17.3
50°-60°	82.4	12.9
60°-70°	52.5	8.2
70°-80°	23.9	3.7
80°-90°	6.3	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°	234.6	36.8
0°-40°	362.6	56.8
0°-60°	555.1	87.0
0°-90°	637.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	637.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	317	317	317	317	317	
5°	328	323	315	307	304	31
15°	334	323	297	277	270	94
25°	308	288	253	238	235	141
35°	240	223	193	188	194	149
45°	157	148	133	137	147	122
55°	99	91	85	92	98	89
65°	60	53	50	52	55	59
75°	29	25	20	18	19	31
85°	6	5	5	5	5	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°	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1
2.5°	323.0	322.1	322.6	322.1	322.6	322.6	321.6	321.6	321.6	321.6	320.3
5°	327.5	327.0	327.0	326.5	326.2	326.5	326.2	325.7	324.7	324.4	323.0
7.5°	330.3	330.3	330.3	330.3	329.8	329.3	328.8	328.0	327.0	326.2	325.2
10°	332.9	333.4	332.9	332.4	332.0	331.1	330.6	329.8	328.5	327.0	326.2
12.5°	334.2	334.2	333.8	333.8	332.9	332.4	331.1	329.8	328.5	327.0	324.7
15°	333.8	333.8	333.4	332.9	331.6	331.1	330.3	328.8	326.5	324.7	322.6
17.5°	331.1	330.6	329.8	329.8	328.0	327.5	326.5	324.7	322.6	319.8	317.1
20°	325.2	325.2	324.7	324.4	322.6	321.2	320.3	318.0	316.2	313.1	310.4
22.5°	317.1	318.0	317.1	316.2	314.0	313.5	312.2	309.4	306.8	303.2	300.0
25°	307.6	307.3	306.8	305.8	304.0	303.2	301.4	298.7	296.0	291.9	288.4
27.5°	295.5	293.7	293.7	291.9	290.5	289.2	288.4	285.6	282.0	278.9	274.4
30°	278.9	279.3	277.1	276.6	274.4	273.4	271.6	269.0	265.7	262.1	258.6
32.5°	260.8	259.5	259.5	257.7	255.9	254.5	254.1	250.9	248.3	244.7	241.0
35°	239.6	239.6	238.3	237.8	236.0	235.2	233.8	232.0	228.9	225.6	223.0
37.5°	218.9	218.0	217.6	216.7	215.3	214.0	214.0	210.8	210.4	206.7	203.1
40°	195.9	196.9	195.9	194.6	194.2	193.3	192.8	191.0	189.6	186.5	184.2
42.5°	176.6	175.7	175.7	175.2	173.4	173.4	172.5	171.6	169.4	168.5	165.8
45°	156.8	157.6	156.3	156.8	155.0	155.0	155.0	153.2	151.4	150.0	148.2
47.5°	139.7	140.0	140.0	138.7	138.3	138.3	137.4	136.5	135.1	133.3	132.0
50°	124.7	125.2	124.4	123.9	122.9	122.6	122.6	120.8	119.8	118.0	117.1
52.5°	111.3	111.3	110.8	110.8	109.5	109.5	108.6	107.3	106.3	105.5	103.2
55°	99.1	99.1	98.6	98.2	98.2	96.8	96.4	95.0	94.2	92.4	91.0
57.5°	87.4	87.9	87.4	86.9	86.5	86.1	85.1	83.8	82.8	81.5	80.7
60°	77.9	77.9	77.4	77.1	76.1	75.7	75.2	74.3	73.0	72.1	70.7
62.5°	68.9	68.5	68.0	67.6	66.7	66.7	65.7	64.9	63.6	62.6	61.8
65°	59.5	59.5	59.0	59.0	58.5	57.7	57.2	56.7	54.9	54.5	52.7
67.5°	50.9	51.4	50.5	50.5	49.6	49.6	49.1	47.8	47.3	46.4	45.5
70°	43.2	43.2	43.2	42.9	41.9	41.4	40.9	40.1	39.6	38.8	37.8
72.5°	35.6	35.6	35.2	35.2	34.7	34.2	33.8	32.9	32.9	32.0	31.1
75°	28.8	28.8	28.4	27.9	27.5	27.5	27.1	26.6	25.7	25.3	24.8
77.5°	22.0	22.0	22.0	21.7	21.2	21.2	21.2	20.2	19.4	19.4	18.9
80°	16.2	16.2	15.8	15.8	15.3	15.3	15.3	14.8	14.4	14.0	13.5
82.5°	10.8	10.8	10.8	10.8	10.4	10.4	10.4	9.9	9.5	9.5	9.5
85°	6.3	6.3	6.3	6.3	5.9	5.9	5.9	5.9	5.9	5.4	5.4
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°	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1
2.5°	320.8	320.3	319.8	319.4	319.4	319.0	318.0	317.6	317.1	316.7	316.7
5°	322.6	322.1	321.2	320.3	319.8	319.0	318.0	317.1	316.2	314.9	314.5
7.5°	323.9	322.6	321.6	319.8	319.4	318.5	317.1	315.8	314.0	312.2	310.9
10°	323.9	322.1	320.8	318.5	317.6	316.7	314.9	312.7	310.4	308.6	306.3
12.5°	323.0	320.8	318.5	316.2	314.9	313.5	310.9	308.6	305.8	303.2	301.4
15°	319.8	317.1	314.5	311.7	310.4	308.6	305.8	302.7	300.0	297.3	294.2
17.5°	314.0	311.3	308.1	305.0	303.2	301.8	297.8	295.5	291.5	288.7	286.1
20°	306.3	303.2	299.1	296.0	293.7	292.3	289.2	285.1	282.0	277.9	275.2
22.5°	296.4	292.3	288.4	285.1	282.9	281.1	277.1	273.0	270.3	266.7	263.6
25°	284.6	280.7	276.6	272.1	269.8	268.0	264.4	260.8	257.2	253.2	250.4
27.5°	270.8	266.2	262.6	258.6	256.3	253.6	249.6	246.0	242.4	239.6	236.0
30°	255.4	250.4	246.8	242.8	240.6	238.3	234.3	230.7	227.5	224.3	222.5
32.5°	237.0	233.3	229.7	225.6	223.8	222.5	218.5	214.9	211.3	208.5	207.2
35°	219.4	215.3	212.2	208.5	206.4	204.9	201.3	198.2	196.4	193.3	191.4
37.5°	200.9	197.7	194.2	190.6	189.2	187.8	185.2	181.9	179.3	177.0	176.1
40°	181.6	178.8	175.7	173.4	172.1	170.7	168.5	166.3	164.5	162.2	161.2
42.5°	163.0	161.2	158.6	155.8	154.5	154.1	151.4	149.5	148.7	147.7	146.9
45°	146.4	143.8	141.8	140.0	138.7	137.9	136.5	135.1	134.2	133.3	132.4
47.5°	130.2	128.0	126.2	124.7	123.4	122.9	122.1	120.8	119.8	119.8	119.8
50°	115.3	113.5	111.7	110.8	110.4	109.5	108.6	108.1	107.6	107.6	107.6
52.5°	102.2	100.4	99.1	98.2	98.2	97.3	96.4	96.0	96.0	96.0	96.0
55°	90.1	88.7	87.9	86.9	86.1	85.6	85.6	85.6	85.1	85.1	85.6
57.5°	79.2	78.4	77.1	76.1	75.7	75.7	75.2	74.8	75.2	75.7	76.1
60°	69.4	68.5	68.0	66.7	66.7	66.7	66.2	66.2	66.2	66.7	67.2
62.5°	60.3	60.0	59.0	58.5	58.1	58.1	57.7	57.7	57.7	57.7	58.1
65°	52.3	51.4	50.5	50.5	50.5	50.0	50.0	49.1	49.6	49.6	49.1
67.5°	44.6	43.7	43.2	42.9	42.4	42.4	41.9	41.4	40.9	40.9	40.9
70°	37.3	36.5	36.5	35.6	35.6	35.2	34.7	34.7	34.2	33.8	33.3
72.5°	30.2	29.7	29.3	28.8	28.8	28.8	28.4	27.9	27.5	27.1	26.1
75°	23.8	23.8	23.0	22.5	22.5	22.0	21.7	21.2	20.7	20.2	19.9
77.5°	18.4	18.1	17.1	16.6	16.6	16.6	16.2	15.8	15.3	14.8	14.4
80°	13.5	13.0	12.6	12.2	12.2	12.2	11.7	11.7	11.3	11.3	11.3
82.5°	9.0	9.0	8.6	8.6	8.6	8.6	8.1	8.1	8.1	8.1	8.1
85°	5.4	5.4	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
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°	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1
2.5°	315.8	315.8	314.9	314.5	314.0	314.5	313.5	313.1	312.7	312.7	312.2
5°	313.1	312.7	310.9	310.4	309.9	309.4	308.6	307.6	306.8	306.3	305.8
7.5°	309.4	308.1	306.3	305.8	305.5	304.0	302.7	301.8	300.4	300.0	299.1
10°	304.5	302.7	301.4	300.0	299.1	297.8	296.4	295.1	293.3	292.8	291.5
12.5°	298.7	296.4	293.7	293.3	291.9	290.2	288.4	286.9	285.6	284.6	283.3
15°	291.5	289.2	286.6	285.1	283.8	282.5	280.2	278.4	277.1	275.7	274.4
17.5°	282.9	280.2	277.9	276.6	275.7	273.4	271.6	269.4	268.0	266.7	265.4
20°	272.6	270.3	267.2	265.7	265.4	263.6	261.3	260.3	258.6	257.2	256.3
22.5°	260.8	258.6	255.9	255.0	253.2	252.3	250.1	249.1	248.3	246.8	246.5
25°	247.8	245.5	243.2	242.8	241.4	240.6	239.2	237.8	237.8	236.5	236.5
27.5°	234.3	232.0	230.2	229.3	228.9	227.9	226.6	226.1	225.6	225.3	225.3
30°	219.9	217.1	216.2	215.8	215.3	214.4	214.0	213.1	213.5	214.0	213.5
32.5°	204.6	203.6	201.8	200.9	201.3	200.9	200.0	200.9	200.5	201.3	201.8
35°	189.6	188.8	187.8	187.8	187.0	187.0	187.0	187.5	188.3	188.8	189.6
37.5°	175.2	173.9	173.4	173.0	173.4	173.4	173.4	174.3	175.2	176.1	177.5
40°	159.9	159.0	159.0	159.0	159.0	160.4	159.9	160.9	161.7	163.0	164.5
42.5°	145.6	145.6	145.9	145.9	145.9	145.9	146.9	148.2	149.5	150.9	152.3
45°	132.0	132.0	132.0	132.9	132.9	133.3	135.1	136.1	136.9	138.3	139.7
47.5°	119.3	119.3	119.8	120.3	120.8	121.6	122.6	123.9	125.2	126.2	127.5
50°	107.6	108.1	109.0	109.9	109.9	110.4	111.7	112.6	113.5	114.9	115.3
52.5°	96.4	97.3	98.2	98.6	99.1	99.9	100.4	101.9	102.2	103.7	104.0
55°	86.1	86.5	87.9	88.3	88.3	89.2	90.1	91.0	92.4	92.4	93.2
57.5°	76.6	77.1	77.9	78.4	77.9	79.2	79.7	80.7	81.0	82.0	82.5
60°	67.2	68.0	68.5	68.5	68.9	69.4	70.3	70.3	71.2	72.1	72.1
62.5°	58.1	58.5	59.0	59.5	60.0	59.5	60.8	60.8	61.8	62.1	63.1
65°	49.6	50.0	50.0	50.5	50.5	50.9	50.9	51.4	51.8	52.7	53.1
67.5°	40.9	40.9	40.9	41.4	40.9	41.4	41.4	41.9	41.9	42.9	43.2
70°	33.3	32.9	32.4	32.4	32.4	32.4	32.0	32.4	32.4	32.9	32.9
72.5°	25.7	25.3	24.8	24.3	24.3	23.8	23.5	23.8	23.8	24.3	24.3
75°	19.4	18.4	18.4	18.4	18.1	18.1	18.1	18.4	18.4	18.4	18.9
77.5°	14.4	14.4	14.0	14.0	14.0	14.4	14.4	14.8	14.8	14.8	14.8
80°	10.8	11.3	11.3	11.3	11.3	11.7	11.7	11.7	11.7	12.2	12.2
82.5°	8.1	8.1	8.1	8.1	8.6	8.6	8.6	8.6	8.6	8.6	8.6
85°	4.9	5.4	5.4	4.9	5.4	5.4	5.4	5.4	5.4	5.4	5.4
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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CATALOG NUMBER: HC805D010-HM80520935-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	317.1	317.1	317.1	317.1	317.1	317.1	317.1	317.1
2.5°	311.7	311.7	311.7	311.7	311.3	311.3	311.3	310.9
5°	305.0	305.0	305.0	304.0	304.5	304.5	303.7	304.0
7.5°	298.2	297.8	297.3	297.3	296.9	296.4	296.0	296.4
10°	290.5	289.2	289.2	288.7	288.7	287.9	287.9	288.4
12.5°	282.0	281.1	281.1	280.7	280.2	279.7	279.3	279.3
15°	273.4	272.6	272.1	271.6	271.2	270.3	270.8	270.3
17.5°	264.9	263.6	263.6	263.1	262.6	261.8	261.8	261.3
20°	255.0	254.5	253.6	254.1	253.6	252.7	252.3	252.3
22.5°	245.0	245.0	244.7	244.7	244.2	243.7	243.2	243.2
25°	235.6	235.2	235.6	235.6	234.3	234.3	234.3	234.7
27.5°	224.8	225.3	224.8	224.8	224.8	224.8	225.3	224.8
30°	214.0	214.0	214.0	214.4	215.3	214.9	214.9	214.4
32.5°	202.3	202.8	202.8	203.1	203.6	204.6	204.6	204.9
35°	190.6	191.4	191.9	191.4	192.8	192.8	193.7	193.7
37.5°	178.4	178.8	179.8	180.1	181.1	181.6	181.9	181.9
40°	165.3	167.1	167.6	168.1	169.4	169.4	169.9	170.7
42.5°	153.2	155.0	155.4	155.8	156.8	158.1	157.6	158.6
45°	141.5	142.8	143.3	143.8	145.1	145.6	145.6	146.9
47.5°	128.8	129.8	130.2	131.1	132.0	132.9	133.8	133.3
50°	116.2	117.5	118.5	119.0	120.3	120.8	121.1	121.6
52.5°	105.0	105.8	106.3	106.8	108.1	108.6	109.0	109.9
55°	94.2	94.6	95.5	95.0	96.4	96.8	97.3	98.2
57.5°	83.3	83.8	84.3	84.3	85.1	86.1	86.5	86.9
60°	73.0	73.9	74.3	74.3	74.3	75.2	75.2	75.2
62.5°	63.6	63.6	63.9	63.9	64.9	64.9	64.9	64.9
65°	53.6	54.1	54.5	54.5	55.4	54.9	55.9	55.4
67.5°	43.2	43.2	44.2	44.2	43.7	44.2	44.2	44.2
70°	32.9	32.9	33.3	33.3	33.3	33.3	33.3	33.3
72.5°	24.3	24.3	24.3	24.8	24.3	24.3	24.8	24.3
75°	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
77.5°	14.8	14.8	15.3	15.3	15.3	15.3	15.3	15.3
80°	12.2	12.2	12.2	12.2	12.6	12.2	12.2	12.2
82.5°	9.0	8.6	9.0	8.6	9.0	9.0	9.0	9.0
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
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)