

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: P583437

Luminaire Tested: **HC805D010-HM80520827-81WWBB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583437  
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-HM80520827-81WWBB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 591.1 lumens  
Efficiency: N/A  
Efficacy: 98.5 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

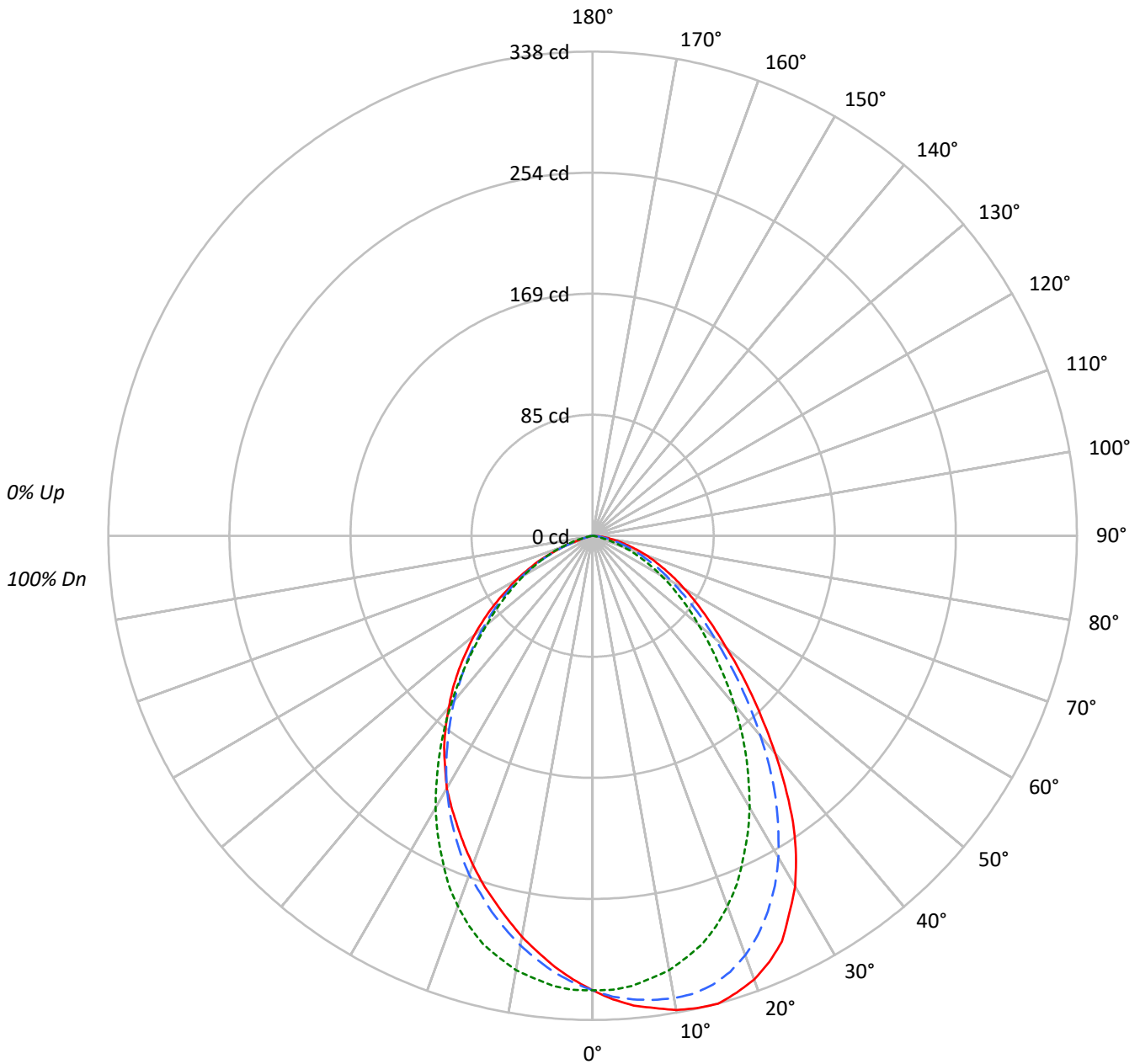
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	9784	9784	9784
5°	10190	9763	9351
10°	10527	9641	8899
15°	10797	9421	8434
20°	10819	9027	8017
25°	10633	8455	7601
30°	10066	7805	7246
35°	9178	7017	6802
40°	7978	6187	6284
45°	6847	5355	5752
50°	5848	4615	5162
55°	5123	3978	4484
60°	4564	3398	3774
65°	4050	2765	3013
70°	3597	2047	1713
75°	2990	1072	512
80°	2362	337	89
85°	1698	177	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.9	5.1
10°-20°	83.8	14.2
20°-30°	118.6	20.1
30°-40°	124.1	21.0
40°-50°	103.5	17.5
50°-60°	73.4	12.4
60°-70°	42.3	7.2
70°-80°	13.6	2.3
80°-90°	1.9	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°	232.3	39.3
0°-40°	356.4	60.3
0°-60°	533.3	90.2
0°-90°	591.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	591.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	317	317	317	317	317	
5°	329	325	315	306	302	32
15°	338	324	295	272	264	95
25°	312	289	248	229	223	143
35°	244	222	186	176	181	151
45°	157	144	123	124	132	122
55°	95	85	74	78	83	86
65°	56	46	38	38	41	55
75°	25	19	9	4	4	27
85°	5	2	0	0	0	6
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°	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3
2.5°	323.9	323.4	323.0	323.4	323.0	323.4	323.0	323.0	322.6	322.1	322.1
5°	329.2	328.7	328.7	328.7	328.2	327.7	327.7	327.3	326.3	325.8	324.9
7.5°	332.5	333.0	333.0	333.0	332.0	332.0	331.1	330.1	329.2	328.2	326.8
10°	336.2	336.2	335.8	335.3	334.4	334.0	333.5	332.5	331.1	329.2	327.7
12.5°	337.7	337.7	337.2	336.2	335.8	335.3	334.9	333.5	331.6	329.2	327.3
15°	338.2	337.2	336.7	336.2	335.3	334.0	334.0	332.0	329.7	326.8	324.4
17.5°	334.4	334.9	334.0	333.0	331.6	330.6	329.2	327.7	324.9	321.6	319.2
20°	329.7	329.2	328.7	327.3	325.3	324.9	323.4	321.2	318.8	314.9	311.6
22.5°	322.1	321.6	320.7	319.7	317.8	316.8	315.4	312.5	309.3	305.5	301.6
25°	312.5	311.6	310.1	308.3	306.9	306.0	304.0	301.2	297.3	293.1	289.3
27.5°	297.3	298.8	297.8	295.1	293.6	291.7	291.2	287.4	284.2	279.9	275.5
30°	282.7	282.7	281.3	279.9	277.5	276.0	274.1	271.4	268.0	262.7	259.4
32.5°	264.2	263.7	261.8	261.3	259.4	256.6	256.2	252.3	249.0	245.3	241.0
35°	243.8	242.9	241.0	239.5	238.6	237.1	235.7	232.5	229.1	225.3	222.4
37.5°	220.6	220.6	220.1	217.7	216.8	215.8	214.4	211.0	209.1	205.4	202.5
40°	198.2	197.7	196.3	195.9	195.0	193.6	192.6	190.7	187.8	184.9	182.2
42.5°	176.4	176.9	175.0	175.5	173.6	172.6	172.1	169.4	167.9	165.1	162.7
45°	157.0	156.6	155.6	155.1	154.2	153.2	152.3	150.8	148.4	145.6	144.2
47.5°	139.0	137.5	137.5	137.1	136.6	134.7	134.2	132.9	131.4	128.6	126.6
50°	121.9	121.9	121.9	121.4	120.1	119.6	118.6	117.2	115.7	113.8	111.0
52.5°	108.1	108.1	108.1	107.6	105.8	105.3	104.9	102.9	101.0	99.6	97.7
55°	95.3	95.8	95.3	94.4	93.0	93.0	91.6	90.6	88.7	87.3	85.3
57.5°	84.4	84.4	83.4	83.0	82.1	81.6	80.7	79.7	77.3	75.9	73.5
60°	74.0	73.5	73.5	72.5	71.6	70.6	70.1	68.8	67.9	65.5	63.6
62.5°	64.5	64.5	63.6	63.6	61.6	61.6	61.2	59.7	58.3	56.0	55.1
65°	55.5	55.5	55.1	54.6	53.1	52.7	52.2	50.8	49.3	47.9	46.4
67.5°	47.4	47.4	46.4	46.0	45.0	44.5	43.7	42.7	41.3	39.9	38.4
70°	39.9	39.4	38.9	38.4	37.5	37.0	36.0	35.1	33.6	32.7	31.4
72.5°	32.2	32.2	31.7	30.9	30.4	29.9	29.4	28.5	27.1	25.6	24.7
75°	25.1	25.1	25.1	24.2	23.2	22.7	22.7	21.8	20.8	19.4	18.6
77.5°	19.4	19.0	18.6	18.6	17.6	17.1	16.6	16.2	14.7	14.2	13.3
80°	13.3	13.8	13.3	12.8	12.3	11.9	11.9	10.9	10.4	9.5	8.5
82.5°	9.0	8.5	8.5	8.0	8.0	7.5	7.5	6.6	6.2	5.7	5.3
85°	4.8	4.8	4.3	4.3	4.3	3.8	3.8	3.4	3.4	2.9	2.4
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3
2.5°	321.6	320.7	320.2	320.2	319.7	319.2	318.8	318.3	317.3	317.3	316.4
5°	323.9	323.0	322.6	321.2	320.2	320.2	318.3	317.8	316.4	315.4	314.5
7.5°	325.8	323.9	322.6	321.2	320.2	319.2	317.3	315.4	313.5	311.6	310.6
10°	325.8	323.9	321.6	319.2	318.3	317.3	314.9	312.1	309.8	307.9	305.5
12.5°	324.9	322.1	319.2	317.3	315.4	314.0	311.1	308.3	305.5	301.6	299.7
15°	322.1	318.3	315.4	312.1	310.6	308.3	306.0	301.6	298.3	295.1	292.7
17.5°	316.4	311.6	308.3	305.0	302.6	301.2	297.3	293.6	289.8	286.0	283.2
20°	307.9	303.6	299.7	295.5	293.6	291.7	286.9	283.2	279.4	275.1	272.2
22.5°	297.3	293.1	287.9	284.6	281.8	279.4	275.1	270.9	267.1	263.2	259.4
25°	284.6	280.3	275.5	270.4	268.5	266.1	261.3	257.1	252.8	248.5	245.3
27.5°	270.9	265.1	261.3	255.7	253.8	251.4	246.2	241.4	237.6	234.3	230.5
30°	254.2	249.9	244.8	239.5	237.6	235.2	231.0	226.7	222.9	219.2	215.3
32.5°	236.2	232.0	226.7	222.9	220.1	218.2	213.9	210.1	206.4	202.5	199.2
35°	217.3	212.5	208.8	204.9	202.5	200.1	195.9	192.6	189.7	186.4	183.1
37.5°	197.7	194.5	190.7	186.4	184.0	182.2	178.8	175.0	172.6	169.9	167.5
40°	178.8	175.0	171.6	167.9	166.0	164.6	161.2	158.4	156.1	153.7	152.3
42.5°	159.3	156.1	152.7	150.3	148.9	147.5	145.2	141.8	140.4	138.0	136.6
45°	141.4	138.5	136.1	132.9	131.9	131.0	128.1	125.7	124.2	122.8	121.9
47.5°	124.2	122.3	119.6	117.7	116.2	115.3	113.4	111.4	110.0	109.0	108.1
50°	109.5	107.3	105.3	103.4	102.5	101.0	99.1	98.2	97.2	96.2	96.2
52.5°	95.8	93.5	91.6	90.1	89.2	88.2	86.8	86.3	85.3	85.3	84.9
55°	83.0	81.6	79.7	77.8	77.3	76.8	75.9	74.9	74.5	74.0	74.5
57.5°	72.1	70.6	68.8	67.4	66.9	66.4	66.0	65.0	64.5	64.5	64.5
60°	62.1	60.7	59.3	57.8	57.8	57.0	56.5	56.0	55.5	55.1	55.1
62.5°	53.1	51.7	50.3	49.3	48.8	48.4	47.4	46.9	46.4	46.4	46.0
65°	45.0	43.2	42.7	41.3	40.8	40.3	39.9	38.9	38.4	37.9	37.5
67.5°	37.0	36.0	34.6	33.6	33.2	32.7	32.2	31.4	30.9	30.4	29.4
70°	29.9	29.0	28.0	27.1	26.6	26.1	25.1	24.2	23.7	22.7	21.3
72.5°	23.2	22.3	21.3	20.3	19.9	19.4	18.6	17.6	16.6	15.7	14.7
75°	17.6	16.6	15.2	14.2	13.8	13.8	12.3	11.4	10.4	9.0	8.0
77.5°	12.3	10.9	10.4	9.5	9.0	8.0	7.1	6.2	5.3	4.8	3.8
80°	8.0	7.1	6.2	5.7	5.3	4.8	4.3	3.4	2.4	1.9	1.4
82.5°	4.8	4.3	3.8	3.4	2.9	2.4	1.9	1.9	1.4	1.0	0.5
85°	2.4	1.9	1.4	1.4	1.0	1.0	1.0	0.5	0.5	0.5	0.5
87.5°	1.0	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°	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3
2.5°	315.9	315.4	314.9	314.5	314.5	313.5	313.5	313.0	312.1	311.6	311.6
5°	313.0	311.6	310.6	310.1	309.8	308.3	307.9	306.9	306.0	305.0	304.5
7.5°	308.8	306.4	305.5	305.0	303.6	302.1	301.2	299.7	298.3	297.0	296.5
10°	303.6	301.2	298.8	297.8	296.5	295.5	293.6	291.7	290.3	288.8	287.4
12.5°	297.0	294.1	291.7	290.8	289.3	287.4	284.6	283.7	281.3	280.3	278.4
15°	289.3	286.0	283.7	282.3	280.8	277.9	276.0	274.1	271.8	270.9	269.0
17.5°	279.9	276.0	273.6	272.2	271.4	269.0	266.1	263.7	261.3	260.3	259.0
20°	268.5	266.1	262.7	261.3	260.3	257.6	254.7	253.8	251.8	249.9	248.5
22.5°	255.7	253.3	249.9	248.5	248.0	245.7	243.4	241.9	240.5	239.0	237.6
25°	242.4	239.5	236.6	235.7	234.7	232.9	231.0	230.1	228.6	227.7	226.7
27.5°	228.1	225.3	222.9	221.4	220.6	219.2	218.2	217.3	216.3	215.3	214.9
30°	212.9	210.1	208.3	207.3	206.4	205.9	204.4	204.0	203.5	202.5	203.0
32.5°	197.7	195.5	193.6	192.1	192.1	191.2	190.7	190.7	190.2	190.2	190.2
35°	181.2	179.8	178.4	177.9	177.4	176.9	176.4	176.9	176.4	176.9	177.4
37.5°	166.0	164.6	163.6	163.2	162.7	163.2	162.7	162.7	163.2	164.1	164.6
40°	150.3	149.4	148.4	148.9	148.4	148.4	148.4	149.9	150.3	150.8	151.3
42.5°	135.6	134.7	134.2	134.2	134.7	134.2	135.1	135.6	136.6	138.0	139.0
45°	121.4	120.9	120.9	121.4	120.9	121.9	121.9	122.8	124.2	125.2	126.2
47.5°	108.1	108.1	108.1	108.6	108.6	109.0	110.0	110.5	111.4	112.4	113.4
50°	95.8	96.2	96.7	96.7	96.7	97.7	98.6	99.1	99.6	100.1	101.5
52.5°	84.9	85.3	85.3	85.8	86.3	86.8	87.3	88.2	88.7	89.7	90.1
55°	74.5	74.5	75.4	75.9	75.9	75.9	76.8	76.8	77.8	78.3	79.2
57.5°	64.5	65.0	65.0	65.5	65.5	66.0	66.4	66.9	67.4	67.9	68.3
60°	55.1	55.1	55.1	55.5	56.0	56.5	56.0	57.0	57.0	57.8	58.3
62.5°	46.0	46.4	46.4	46.4	46.4	46.4	46.4	46.9	47.4	47.9	48.4
65°	37.5	37.5	37.5	37.0	37.5	37.0	37.5	37.9	37.9	38.4	38.9
67.5°	29.0	29.0	28.0	28.0	28.5	28.5	28.5	28.5	28.0	29.0	29.0
70°	20.8	20.3	19.9	19.4	19.4	19.0	19.0	18.6	18.6	18.6	18.6
72.5°	13.8	12.8	11.9	11.4	10.9	10.9	9.9	9.5	9.9	9.9	9.9
75°	7.1	6.2	5.7	5.3	4.8	4.8	4.3	4.3	4.3	4.3	4.3
77.5°	2.9	2.4	1.9	1.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.0	1.0	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





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**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	317.3	317.3	317.3	317.3	317.3	317.3	317.3	317.3
2.5°	311.1	311.1	310.6	311.1	310.1	310.6	310.1	310.1
5°	304.0	303.1	303.1	303.1	302.6	302.6	302.1	302.1
7.5°	295.5	295.1	294.6	294.1	293.6	293.1	293.1	293.1
10°	286.9	286.0	286.0	285.5	284.6	284.2	284.2	284.2
12.5°	277.0	276.5	276.0	276.0	274.1	274.6	274.1	274.1
15°	267.5	267.1	267.1	265.6	264.7	264.7	264.7	264.2
17.5°	257.6	257.1	256.6	255.7	254.7	254.7	254.2	254.7
20°	247.1	246.7	245.7	245.7	245.3	244.8	243.8	244.3
22.5°	236.6	235.7	235.2	235.2	234.7	234.7	233.9	233.9
25°	225.8	225.3	224.8	225.3	224.3	224.3	223.4	223.4
27.5°	214.4	213.9	213.9	213.9	213.4	213.9	213.4	213.4
30°	203.0	203.0	202.5	202.5	203.0	202.5	203.0	203.5
32.5°	190.7	190.7	191.2	191.2	191.6	191.6	191.6	191.6
35°	177.9	178.8	178.8	179.3	179.8	180.3	180.3	180.7
37.5°	166.0	166.5	167.0	167.5	168.4	168.4	168.4	168.4
40°	153.2	153.7	154.7	154.2	156.1	156.6	156.1	156.1
42.5°	139.9	140.9	141.4	142.3	142.8	143.8	144.2	144.2
45°	127.6	128.1	129.0	130.0	130.5	131.9	131.9	131.9
47.5°	114.8	115.7	116.2	117.2	117.7	119.1	119.6	119.1
50°	102.5	103.4	104.4	104.4	105.8	106.3	107.3	107.6
52.5°	90.6	91.1	92.0	92.5	93.5	94.4	94.9	95.3
55°	79.2	79.7	80.7	80.7	82.1	82.5	83.4	83.4
57.5°	68.8	69.3	70.1	69.7	70.6	71.6	71.6	71.1
60°	58.8	58.8	58.8	59.7	60.2	60.7	61.2	61.2
62.5°	48.4	49.3	49.8	49.8	50.3	50.8	50.8	50.3
65°	38.9	39.9	40.3	40.3	40.8	40.8	40.8	41.3
67.5°	29.4	29.4	29.4	29.9	29.4	29.4	29.4	29.4
70°	18.6	18.6	18.6	18.6	18.1	18.6	18.6	19.0
72.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
75°	4.3	4.3	4.3	4.8	4.3	4.3	4.3	4.3
77.5°	1.9	1.4	1.9	1.9	1.4	1.4	1.4	1.4
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)