

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: P583439

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583439  
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-HM80520827-81WWWB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 671.7 lumens  
Efficiency: N/A  
Efficacy: 112.0 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

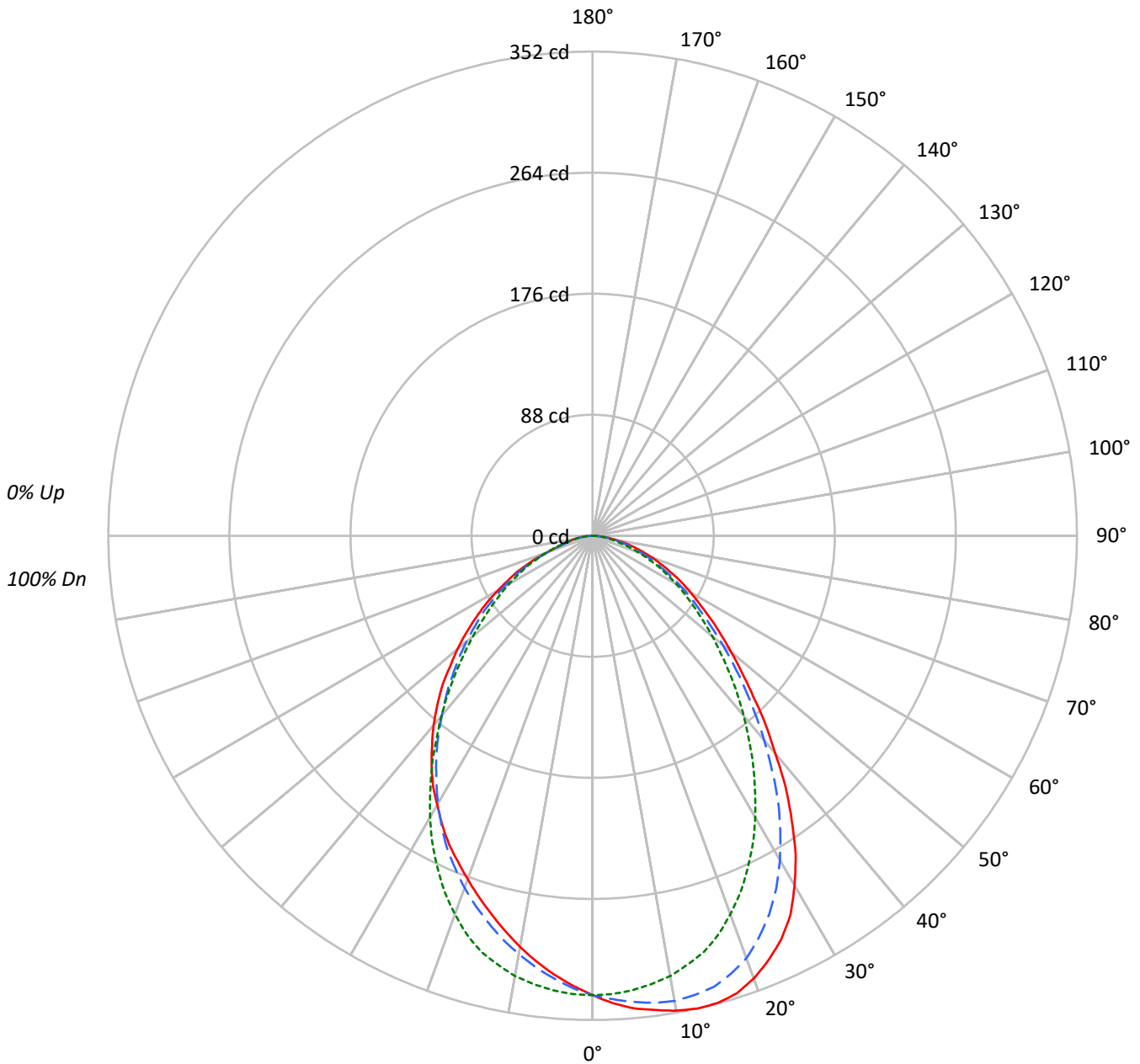
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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	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°	10299	10299	10299
5°	10676	10264	9912
10°	10978	10176	9506
15°	11225	9995	9086
20°	11239	9605	8716
25°	11024	9071	8411
30°	10454	8414	8040
35°	9498	7661	7679
40°	8308	6875	7238
45°	7200	6123	6746
50°	6304	5440	6145
55°	5613	4822	5559
60°	5063	4336	4884
65°	4568	3809	4254
70°	4102	3210	3165
75°	3622	2538	2371
80°	3037	2113	2273
85°	2335	1875	2017



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.5	4.7
10°-20°	88.7	13.2
20°-30°	126.8	18.9
30°-40°	134.8	20.1
40°-50°	116.0	17.3
50°-60°	86.7	12.9
60°-70°	55.3	8.2
70°-80°	25.2	3.7
80°-90°	6.6	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°	247.1	36.8
0°-40°	381.8	56.8
0°-60°	584.6	87.0
0°-90°	671.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	671.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	334	334	334	334	334	
5°	345	340	332	323	320	33
15°	352	340	313	292	285	99
25°	324	304	267	250	247	148
35°	252	235	204	198	204	157
45°	165	156	140	144	155	128
55°	104	96	90	97	103	94
65°	63	56	52	55	58	62
75°	30	26	21	19	20	32
85°	7	6	5	6	6	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°	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0
2.5°	340.2	339.2	339.7	339.2	339.7	339.7	338.8	338.8	338.8	338.8	337.3
5°	344.9	344.4	344.4	343.9	343.4	343.9	343.4	342.9	342.0	341.5	340.2
7.5°	347.7	347.7	347.7	347.7	347.2	346.8	346.3	345.3	344.4	343.4	342.5
10°	350.6	351.1	350.6	350.1	349.6	348.7	348.2	347.2	345.8	344.4	343.4
12.5°	352.0	352.0	351.6	351.6	350.6	350.1	348.7	347.2	345.8	344.4	342.0
15°	351.6	351.6	351.1	350.6	349.2	348.7	347.7	346.3	343.9	342.0	339.7
17.5°	348.7	348.2	347.2	347.2	345.3	344.9	343.9	342.0	339.7	336.8	334.0
20°	342.5	342.5	342.0	341.5	339.7	338.3	337.3	334.9	333.0	329.7	326.9
22.5°	334.0	334.9	334.0	333.0	330.6	330.1	328.7	325.9	323.1	319.2	315.9
25°	324.0	323.5	323.1	322.1	320.2	319.2	317.3	314.6	311.7	307.4	303.6
27.5°	311.2	309.3	309.3	307.4	306.0	304.5	303.6	300.8	297.0	293.6	289.0
30°	293.6	294.1	291.7	291.2	289.0	288.0	286.1	283.2	279.9	276.1	272.3
32.5°	274.7	273.3	273.3	271.4	269.4	268.0	267.5	264.2	261.4	257.6	253.8
35°	252.3	252.3	251.0	250.5	248.6	247.7	246.2	244.3	241.0	237.7	234.9
37.5°	230.5	229.6	229.1	228.1	226.7	225.4	225.4	222.0	221.6	217.7	213.9
40°	206.4	207.3	206.4	204.9	204.4	203.5	203.0	201.1	199.8	196.4	194.0
42.5°	186.0	185.1	185.1	184.6	182.7	182.7	181.7	180.7	178.4	177.4	174.5
45°	165.1	166.0	164.6	165.1	163.2	163.2	163.2	161.2	159.4	158.0	156.1
47.5°	147.1	147.6	147.6	146.2	145.7	145.7	144.7	143.8	142.3	140.4	139.0
50°	131.4	131.9	131.0	130.5	129.5	129.0	129.0	127.1	126.2	124.2	123.3
52.5°	117.2	117.2	116.7	116.7	115.3	115.3	114.3	112.9	111.9	111.0	108.7
55°	104.4	104.4	103.9	103.4	103.4	102.0	101.5	100.1	99.1	97.2	95.9
57.5°	92.0	92.5	92.0	91.6	91.1	90.6	89.7	88.2	87.3	85.8	84.9
60°	82.1	82.1	81.6	81.2	80.2	79.7	79.2	78.3	76.8	75.9	74.5
62.5°	72.5	72.1	71.6	71.1	70.3	70.3	69.3	68.3	66.9	66.0	65.0
65°	62.6	62.6	62.1	62.1	61.6	60.7	60.2	59.7	57.9	57.5	55.5
67.5°	53.6	54.1	53.1	53.1	52.2	52.2	51.7	50.3	49.8	48.8	47.9
70°	45.5	45.5	45.5	45.1	44.2	43.7	43.2	42.3	41.8	40.8	39.9
72.5°	37.5	37.5	37.0	37.0	36.5	36.0	35.6	34.6	34.6	33.6	32.7
75°	30.4	30.4	29.9	29.4	29.0	29.0	28.5	28.0	27.1	26.6	26.1
77.5°	23.2	23.2	23.2	22.7	22.3	22.3	22.3	21.3	20.3	20.3	19.9
80°	17.1	17.1	16.6	16.6	16.2	16.2	16.2	15.7	15.2	14.7	14.2
82.5°	11.4	11.4	11.4	11.4	10.9	10.9	10.9	10.4	9.9	9.9	9.9
85°	6.6	6.6	6.6	6.6	6.2	6.2	6.2	6.2	6.2	5.7	5.7
87.5°	2.9	2.4	2.9	2.4	2.9	2.4	2.9	2.4	2.4	2.4	2.4
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°	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0
2.5°	337.8	337.3	336.8	336.4	336.4	335.9	334.9	334.4	334.0	333.5	333.5
5°	339.7	339.2	338.3	337.3	336.8	335.9	334.9	334.0	333.0	331.6	331.1
7.5°	341.1	339.7	338.8	336.8	336.4	335.4	334.0	332.5	330.6	328.7	327.4
10°	341.1	339.2	337.8	335.4	334.4	333.5	331.6	329.2	326.9	325.0	322.6
12.5°	340.2	337.8	335.4	333.0	331.6	330.1	327.4	325.0	322.1	319.2	317.3
15°	336.8	334.0	331.1	328.3	326.9	325.0	322.1	318.8	315.9	313.1	309.8
17.5°	330.6	327.9	324.5	321.2	319.2	317.8	313.6	311.2	306.9	304.0	301.3
20°	322.6	319.2	315.1	311.7	309.3	307.9	304.5	300.3	297.0	292.7	289.9
22.5°	312.2	307.9	303.6	300.3	297.9	296.0	291.7	287.5	284.6	280.8	277.5
25°	299.8	295.5	291.2	286.6	284.2	282.3	278.4	274.7	270.9	266.6	263.8
27.5°	285.1	280.3	276.6	272.3	269.9	267.1	262.9	259.0	255.2	252.3	248.6
30°	269.0	263.8	260.0	255.7	253.3	251.0	246.7	242.9	239.5	236.3	234.4
32.5°	249.6	245.7	241.9	237.7	235.8	234.4	230.1	226.2	222.5	219.6	218.2
35°	231.0	226.7	223.5	219.6	217.3	215.8	212.1	208.8	206.8	203.5	201.6
37.5°	211.6	208.3	204.4	200.6	199.3	197.9	195.0	191.6	188.8	186.5	185.5
40°	191.2	188.3	185.1	182.7	181.2	179.8	177.4	175.0	173.2	170.8	169.9
42.5°	171.8	169.9	167.0	164.1	162.7	162.2	159.4	157.5	156.6	155.6	154.7
45°	154.2	151.3	149.4	147.6	146.2	145.2	143.8	142.3	141.4	140.4	139.5
47.5°	137.1	134.8	132.9	131.4	130.0	129.5	128.6	127.1	126.2	126.2	126.2
50°	121.5	119.6	117.7	116.7	116.2	115.3	114.3	113.8	113.4	113.4	113.4
52.5°	107.7	105.8	104.4	103.4	103.4	102.5	101.5	101.0	101.0	101.0	101.0
55°	94.9	93.5	92.5	91.6	90.6	90.1	90.1	90.1	89.7	89.7	90.1
57.5°	83.6	82.6	81.2	80.2	79.7	79.7	79.2	78.8	79.2	79.7	80.2
60°	73.0	72.1	71.6	70.3	70.3	70.3	69.8	69.8	69.8	70.3	70.7
62.5°	63.6	63.1	62.1	61.6	61.2	61.2	60.7	60.7	60.7	60.7	61.2
65°	55.1	54.1	53.1	53.1	53.1	52.7	52.7	51.7	52.2	52.2	51.7
67.5°	46.9	46.0	45.5	45.1	44.6	44.6	44.2	43.7	43.2	43.2	43.2
70°	39.4	38.4	38.4	37.5	37.5	37.0	36.5	36.5	36.0	35.6	35.1
72.5°	31.8	31.4	30.9	30.4	30.4	30.4	29.9	29.4	29.0	28.5	27.5
75°	25.1	25.1	24.2	23.7	23.7	23.2	22.7	22.3	21.8	21.3	20.8
77.5°	19.4	19.0	18.1	17.6	17.6	17.6	17.1	16.6	16.2	15.7	15.2
80°	14.2	13.8	13.3	12.8	12.8	12.8	12.3	12.3	11.9	11.9	11.9
82.5°	9.5	9.5	9.0	9.0	9.0	9.0	8.5	8.5	8.5	8.5	8.5
85°	5.7	5.7	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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°	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0
2.5°	332.5	332.5	331.6	331.1	330.6	331.1	330.1	329.7	329.2	329.2	328.7
5°	329.7	329.2	327.4	326.9	326.4	325.9	325.0	324.0	323.1	322.6	322.1
7.5°	325.9	324.5	322.6	322.1	321.6	320.2	318.8	317.8	316.4	315.9	315.1
10°	320.7	318.8	317.3	315.9	315.1	313.6	312.2	310.7	308.8	308.3	306.9
12.5°	314.6	312.2	309.3	308.8	307.4	305.5	303.6	302.2	300.8	299.8	298.4
15°	306.9	304.5	301.8	300.3	298.9	297.5	295.1	293.1	291.7	290.3	289.0
17.5°	297.9	295.1	292.7	291.2	290.3	288.0	286.1	283.7	282.3	280.8	279.4
20°	287.0	284.6	281.3	279.9	279.4	277.5	275.2	274.2	272.3	270.9	269.9
22.5°	274.7	272.3	269.4	268.5	266.6	265.6	263.3	262.4	261.4	260.0	259.5
25°	260.9	258.6	256.2	255.7	254.2	253.3	251.8	250.5	250.5	249.1	249.1
27.5°	246.7	244.3	242.4	241.4	241.0	240.0	238.6	238.2	237.7	237.2	237.2
30°	231.5	228.6	227.7	227.2	226.7	225.8	225.4	224.4	224.9	225.4	224.9
32.5°	215.3	214.4	212.6	211.6	212.1	211.6	210.7	211.6	211.2	212.1	212.6
35°	199.8	198.8	197.9	197.9	196.9	196.9	196.9	197.4	198.3	198.8	199.8
37.5°	184.6	183.1	182.7	182.2	182.7	182.7	182.7	183.6	184.6	185.5	186.9
40°	168.4	167.5	167.5	167.5	167.5	168.9	168.4	169.4	170.3	171.8	173.2
42.5°	153.2	153.2	153.7	153.7	153.7	153.7	154.7	156.1	157.5	159.0	160.4
45°	139.0	139.0	139.0	139.9	139.9	140.4	142.3	143.3	144.2	145.7	147.1
47.5°	125.7	125.7	126.2	126.6	127.1	128.1	129.0	130.5	131.9	132.9	134.3
50°	113.4	113.8	114.8	115.7	115.7	116.2	117.7	118.6	119.6	121.0	121.5
52.5°	101.5	102.5	103.4	103.9	104.4	105.3	105.8	107.3	107.7	109.2	109.5
55°	90.6	91.1	92.5	93.0	93.0	94.0	94.9	95.9	97.2	97.2	98.2
57.5°	80.7	81.2	82.1	82.6	82.1	83.6	83.9	84.9	85.3	86.3	86.8
60°	70.7	71.6	72.1	72.1	72.5	73.0	74.0	74.0	74.9	75.9	75.9
62.5°	61.2	61.6	62.1	62.6	63.1	62.6	64.0	64.0	65.0	65.5	66.4
65°	52.2	52.7	52.7	53.1	53.1	53.6	53.6	54.1	54.6	55.5	56.0
67.5°	43.2	43.2	43.2	43.7	43.2	43.7	43.7	44.2	44.2	45.1	45.5
70°	35.1	34.6	34.1	34.1	34.1	34.1	33.6	34.1	34.1	34.6	34.6
72.5°	27.1	26.6	26.1	25.6	25.6	25.1	24.7	25.1	25.1	25.6	25.6
75°	20.3	19.4	19.4	19.4	19.0	19.0	19.0	19.4	19.4	19.4	19.9
77.5°	15.2	15.2	14.7	14.7	14.7	15.2	15.2	15.7	15.7	15.7	15.7
80°	11.4	11.9	11.9	11.9	11.9	12.3	12.3	12.3	12.3	12.8	12.8
82.5°	8.5	8.5	8.5	8.5	9.0	9.0	9.0	9.0	9.0	9.0	9.0
85°	5.3	5.7	5.7	5.3	5.7	5.7	5.7	5.7	5.7	5.7	5.7
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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°	334.0	334.0	334.0	334.0	334.0	334.0	334.0	334.0
2.5°	328.3	328.3	328.3	328.3	327.9	327.9	327.9	327.4
5°	321.2	321.2	321.2	320.2	320.7	320.7	319.7	320.2
7.5°	314.1	313.6	313.1	313.1	312.7	312.2	311.7	312.2
10°	306.0	304.5	304.5	304.0	304.0	303.1	303.1	303.6
12.5°	297.0	296.0	296.0	295.5	295.1	294.6	294.1	294.1
15°	288.0	287.0	286.6	286.1	285.6	284.6	285.1	284.6
17.5°	278.9	277.5	277.5	277.1	276.6	275.7	275.7	275.2
20°	268.5	268.0	267.1	267.5	267.1	266.1	265.6	265.6
22.5°	258.1	258.1	257.6	257.6	257.1	256.6	256.2	256.2
25°	248.1	247.7	248.1	248.1	246.7	246.7	246.7	247.2
27.5°	236.8	237.2	236.8	236.8	236.8	236.8	237.2	236.8
30°	225.4	225.4	225.4	225.8	226.7	226.2	226.2	225.8
32.5°	212.9	213.4	213.4	213.9	214.4	215.3	215.3	215.8
35°	200.6	201.6	202.1	201.6	203.0	203.0	204.0	204.0
37.5°	187.8	188.3	189.2	189.7	190.7	191.2	191.6	191.6
40°	174.0	176.0	176.4	176.9	178.4	178.4	178.8	179.8
42.5°	161.2	163.2	163.6	164.1	165.1	166.5	166.0	167.0
45°	148.9	150.3	150.8	151.3	152.7	153.2	153.2	154.7
47.5°	135.6	136.6	137.1	138.0	139.0	139.9	140.9	140.4
50°	122.5	123.8	124.7	125.2	126.6	127.1	127.6	128.1
52.5°	110.5	111.4	111.9	112.4	113.8	114.3	114.8	115.7
55°	99.1	99.6	100.5	100.1	101.5	102.0	102.5	103.4
57.5°	87.7	88.2	88.7	88.7	89.7	90.6	91.1	91.6
60°	76.8	77.8	78.3	78.3	78.3	79.2	79.2	79.2
62.5°	66.9	66.9	67.4	67.4	68.3	68.3	68.3	68.3
65°	56.5	57.0	57.5	57.5	58.3	57.9	58.8	58.3
67.5°	45.5	45.5	46.4	46.4	46.0	46.4	46.4	46.4
70°	34.6	34.6	35.1	35.1	35.1	35.1	35.1	35.1
72.5°	25.6	25.6	25.6	26.1	25.6	25.6	26.1	25.6
75°	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
77.5°	15.7	15.7	16.2	16.2	16.2	16.2	16.2	16.2
80°	12.8	12.8	12.8	12.8	13.3	12.8	12.8	12.8
82.5°	9.5	9.0	9.5	9.0	9.5	9.5	9.5	9.5
85°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)