

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: P583473

Luminaire Tested: **HC805D010-HM80520835-81WWWB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583473  
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-HM80520835-81WWWB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 695.0 lumens  
Efficiency: N/A  
Efficacy: 115.8 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

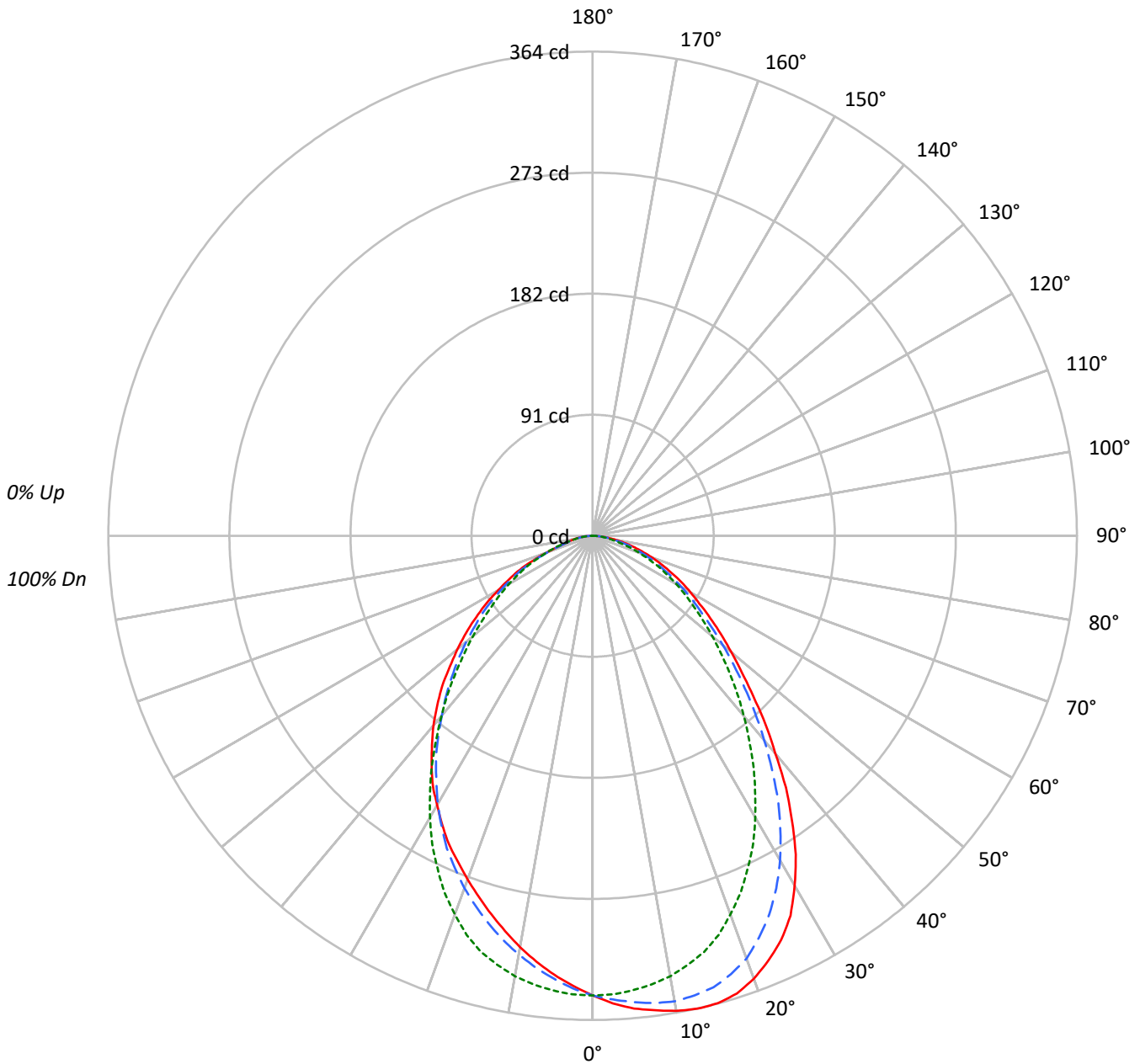
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	10657	10657	10657
5°	11044	10620	10255
10°	11357	10527	9835
15°	11614	10340	9402
20°	11630	9936	9018
25°	11408	9387	8700
30°	10817	8702	8321
35°	9833	7928	7943
40°	8594	7113	7487
45°	7448	6336	6977
50°	6524	5627	6356
55°	5806	4989	5752
60°	5236	4484	5057
65°	4728	3940	4400
70°	4256	3327	3273
75°	3741	2633	2454
80°	3143	2184	2362
85°	2406	1911	2087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.6	4.7
10°-20°	91.8	13.2
20°-30°	131.2	18.9
30°-40°	139.4	20.1
40°-50°	120.0	17.3
50°-60°	89.8	12.9
60°-70°	57.2	8.2
70°-80°	26.1	3.7
80°-90°	6.8	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°	255.6	36.8
0°-40°	395.1	56.8
0°-60°	604.9	87.0
0°-90°	695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	695.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	346	346	346	346	346	
5°	357	352	343	334	331	34
15°	364	351	324	302	294	102
25°	335	314	276	259	256	153
35°	261	243	211	205	211	163
45°	171	162	145	149	160	133
55°	108	99	93	101	107	97
65°	65	58	54	56	60	65
75°	31	27	22	20	21	33
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°	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6
2.5°	351.9	351.0	351.4	351.0	351.4	351.4	350.5	350.5	350.5	350.5	349.0
5°	356.8	356.3	356.3	355.9	355.4	355.9	355.4	354.9	354.0	353.4	351.9
7.5°	359.8	359.8	359.8	359.8	359.3	358.9	358.3	357.3	356.3	355.4	354.4
10°	362.7	363.2	362.7	362.2	361.7	360.8	360.3	359.3	357.8	356.3	355.4
12.5°	364.2	364.2	363.8	363.8	362.7	362.2	360.8	359.3	357.8	356.3	354.0
15°	363.8	363.8	363.2	362.7	361.3	360.8	359.8	358.3	355.9	354.0	351.4
17.5°	360.8	360.3	359.3	359.3	357.3	356.8	355.9	354.0	351.4	348.4	345.6
20°	354.4	354.4	354.0	353.4	351.4	350.0	349.0	346.5	344.6	341.1	338.2
22.5°	345.6	346.5	345.6	344.6	342.1	341.6	340.2	337.2	334.3	330.4	326.9
25°	335.3	334.8	334.3	333.2	331.3	330.4	328.3	325.5	322.5	318.0	314.1
27.5°	322.0	320.1	320.1	318.0	316.6	315.2	314.1	311.2	307.3	303.8	298.9
30°	303.8	304.3	301.9	301.4	298.9	297.9	296.0	293.0	289.6	285.7	281.8
32.5°	284.2	282.7	282.7	280.8	278.8	277.3	276.9	273.4	270.4	266.6	262.6
35°	261.2	261.2	259.6	259.2	257.2	256.3	254.7	252.8	249.3	245.9	243.0
37.5°	238.6	237.6	237.1	236.0	234.6	233.2	233.2	229.7	229.2	225.3	221.3
40°	213.5	214.5	213.5	212.0	211.5	210.6	210.1	208.2	206.6	203.3	200.7
42.5°	192.4	191.4	191.4	190.9	189.0	189.0	188.0	187.0	184.6	183.6	180.6
45°	170.8	171.8	170.3	170.8	168.9	168.9	168.9	166.9	164.9	163.5	161.5
47.5°	152.1	152.6	152.6	151.2	150.7	150.7	149.7	148.8	147.2	145.3	143.8
50°	136.0	136.5	135.5	135.0	133.9	133.5	133.5	131.6	130.6	128.6	127.6
52.5°	121.3	121.3	120.8	120.8	119.2	119.2	118.3	116.8	115.9	114.9	112.4
55°	108.0	108.0	107.5	107.0	107.0	105.6	105.1	103.5	102.6	100.7	99.1
57.5°	95.3	95.8	95.3	94.7	94.2	93.7	92.8	91.3	90.4	88.8	87.9
60°	84.9	84.9	84.4	83.9	83.0	82.5	82.0	81.0	79.5	78.5	77.1
62.5°	75.1	74.6	74.1	73.6	72.7	72.7	71.7	70.6	69.2	68.2	67.3
65°	64.8	64.8	64.3	64.3	63.8	62.8	62.4	61.9	59.8	59.4	57.5
67.5°	55.4	55.9	54.9	54.9	54.0	54.0	53.5	52.1	51.6	50.5	49.6
70°	47.2	47.2	47.2	46.7	45.6	45.1	44.6	43.7	43.2	42.3	41.2
72.5°	38.8	38.8	38.3	38.3	37.8	37.3	36.9	35.8	35.8	34.8	33.9
75°	31.4	31.4	30.9	30.4	29.9	29.9	29.4	29.0	28.0	27.5	27.1
77.5°	24.1	24.1	24.1	23.6	23.1	23.1	23.1	22.1	21.1	21.1	20.6
80°	17.7	17.7	17.2	17.2	16.6	16.6	16.6	16.2	15.7	15.2	14.7
82.5°	11.7	11.7	11.7	11.7	11.3	11.3	11.3	10.8	10.3	10.3	10.3
85°	6.8	6.8	6.8	6.8	6.3	6.3	6.3	6.3	6.3	5.9	5.9
87.5°	3.0	2.5	3.0	2.5	3.0	2.5	3.0	2.5	2.5	2.5	2.5
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°	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6
2.5°	349.5	349.0	348.4	348.0	348.0	347.5	346.5	346.1	345.6	345.1	345.1
5°	351.4	351.0	350.0	349.0	348.4	347.5	346.5	345.6	344.6	343.1	342.6
7.5°	352.9	351.4	350.5	348.4	348.0	347.0	345.6	344.1	342.1	340.2	338.6
10°	352.9	351.0	349.5	347.0	346.1	345.1	343.1	340.7	338.2	336.2	333.7
12.5°	351.9	349.5	347.0	344.6	343.1	341.6	338.6	336.2	333.2	330.4	328.3
15°	348.4	345.6	342.6	339.7	338.2	336.2	333.2	329.9	326.9	323.9	320.6
17.5°	342.1	339.2	335.8	332.3	330.4	328.8	324.5	322.0	317.6	314.7	311.7
20°	333.7	330.4	325.9	322.5	320.1	318.5	315.2	310.7	307.3	302.8	300.0
22.5°	323.0	318.5	314.1	310.7	308.2	306.3	301.9	297.5	294.5	290.6	287.2
25°	310.3	305.8	301.4	296.5	294.0	292.1	288.1	284.2	280.2	275.9	272.9
27.5°	295.1	290.0	286.2	281.8	279.3	276.4	272.0	268.0	264.1	261.2	257.2
30°	278.3	272.9	269.0	264.5	262.1	259.6	255.2	251.4	247.9	244.4	242.5
32.5°	258.2	254.2	250.3	245.9	243.9	242.5	238.1	234.1	230.2	227.3	225.8
35°	239.0	234.6	231.1	227.3	224.8	223.4	219.4	215.9	214.0	210.6	208.6
37.5°	218.9	215.5	211.5	207.7	206.1	204.7	201.7	198.3	195.4	193.0	191.9
40°	197.9	194.9	191.4	189.0	187.5	186.0	183.6	181.1	179.2	176.7	175.7
42.5°	177.6	175.7	172.7	169.9	168.4	167.8	164.9	162.9	162.0	161.0	160.0
45°	159.6	156.6	154.7	152.6	151.2	150.2	148.8	147.2	146.3	145.3	144.4
47.5°	141.8	139.5	137.4	136.0	134.5	133.9	133.0	131.6	130.6	130.6	130.6
50°	125.7	123.7	121.7	120.8	120.3	119.2	118.3	117.8	117.3	117.3	117.3
52.5°	111.4	109.4	108.0	107.0	107.0	106.1	105.1	104.5	104.5	104.5	104.5
55°	98.2	96.7	95.8	94.7	93.7	93.2	93.2	93.2	92.8	92.8	93.2
57.5°	86.4	85.5	83.9	83.0	82.5	82.5	82.0	81.5	82.0	82.5	83.0
60°	75.7	74.6	74.1	72.7	72.7	72.7	72.2	72.2	72.2	72.7	73.1
62.5°	65.7	65.2	64.3	63.8	63.3	63.3	62.8	62.8	62.8	62.8	63.3
65°	57.0	55.9	54.9	54.9	54.9	54.5	54.5	53.5	54.0	54.0	53.5
67.5°	48.6	47.6	47.2	46.7	46.1	46.1	45.6	45.1	44.6	44.6	44.6
70°	40.7	39.7	39.7	38.8	38.8	38.3	37.8	37.8	37.3	36.9	36.3
72.5°	32.9	32.4	32.0	31.4	31.4	31.4	30.9	30.4	29.9	29.4	28.5
75°	26.0	26.0	25.0	24.5	24.5	24.1	23.6	23.1	22.6	22.1	21.5
77.5°	20.1	19.6	18.7	18.2	18.2	18.2	17.7	17.2	16.6	16.2	15.7
80°	14.7	14.2	13.8	13.3	13.3	13.3	12.8	12.8	12.3	12.3	12.3
82.5°	9.8	9.8	9.3	9.3	9.3	9.3	8.9	8.9	8.9	8.9	8.9
85°	5.9	5.9	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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°	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6
2.5°	344.1	344.1	343.1	342.6	342.1	342.6	341.6	341.1	340.7	340.7	340.2
5°	341.1	340.7	338.6	338.2	337.7	337.2	336.2	335.3	334.3	333.7	333.2
7.5°	337.2	335.8	333.7	333.2	332.8	331.3	329.9	328.8	327.4	326.9	325.9
10°	331.8	329.9	328.3	326.9	325.9	324.5	323.0	321.5	319.6	319.0	317.6
12.5°	325.5	323.0	320.1	319.6	318.0	316.1	314.1	312.7	311.2	310.3	308.7
15°	317.6	315.2	312.2	310.7	309.2	307.7	305.4	303.3	301.9	300.4	298.9
17.5°	308.2	305.4	302.8	301.4	300.4	297.9	296.0	293.5	292.1	290.6	289.1
20°	297.0	294.5	291.1	289.6	289.1	287.2	284.6	283.7	281.8	280.2	279.3
22.5°	284.2	281.8	278.8	277.8	275.9	274.8	272.4	271.5	270.4	269.0	268.5
25°	269.9	267.5	265.0	264.5	263.1	262.1	260.6	259.2	259.2	257.7	257.7
27.5°	255.2	252.8	250.8	249.8	249.3	248.4	246.9	246.5	245.9	245.4	245.4
30°	239.5	236.6	235.6	235.1	234.6	233.7	233.2	232.2	232.7	233.2	232.7
32.5°	222.9	221.9	219.9	218.9	219.4	218.9	218.0	218.9	218.5	219.4	219.9
35°	206.6	205.6	204.7	204.7	203.7	203.7	203.7	204.2	205.2	205.6	206.6
37.5°	190.9	189.5	189.0	188.5	189.0	189.0	189.0	190.0	190.9	191.9	193.4
40°	174.3	173.3	173.3	173.3	173.3	174.8	174.3	175.2	176.2	177.6	179.2
42.5°	158.6	158.6	159.1	159.1	159.1	159.1	160.0	161.5	162.9	164.5	165.9
45°	143.8	143.8	143.8	144.8	144.8	145.3	147.2	148.2	149.3	150.7	152.1
47.5°	130.1	130.1	130.6	131.1	131.6	132.5	133.5	135.0	136.5	137.4	138.9
50°	117.3	117.8	118.7	119.8	119.8	120.3	121.7	122.7	123.7	125.2	125.7
52.5°	105.1	106.1	107.0	107.5	108.0	108.9	109.4	111.0	111.4	112.9	113.4
55°	93.7	94.2	95.8	96.2	96.2	97.2	98.2	99.1	100.7	100.7	101.6
57.5°	83.4	83.9	84.9	85.5	84.9	86.4	86.9	87.9	88.3	89.3	89.8
60°	73.1	74.1	74.6	74.6	75.1	75.7	76.6	76.6	77.6	78.5	78.5
62.5°	63.3	63.8	64.3	64.8	65.2	64.8	66.3	66.3	67.3	67.8	68.7
65°	54.0	54.5	54.5	54.9	54.9	55.4	55.4	55.9	56.5	57.5	57.9
67.5°	44.6	44.6	44.6	45.1	44.6	45.1	45.1	45.6	45.6	46.7	47.2
70°	36.3	35.8	35.3	35.3	35.3	35.3	34.8	35.3	35.3	35.8	35.8
72.5°	28.0	27.5	27.1	26.5	26.5	26.0	25.5	26.0	26.0	26.5	26.5
75°	21.1	20.1	20.1	20.1	19.6	19.6	19.6	20.1	20.1	20.1	20.6
77.5°	15.7	15.7	15.2	15.2	15.2	15.7	15.7	16.2	16.2	16.2	16.2
80°	11.7	12.3	12.3	12.3	12.3	12.8	12.8	12.8	12.8	13.3	13.3
82.5°	8.9	8.9	8.9	8.9	9.3	9.3	9.3	9.3	9.3	9.3	9.3
85°	5.4	5.9	5.9	5.4	5.9	5.9	5.9	5.9	5.9	5.9	5.9
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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°	345.6	345.6	345.6	345.6	345.6	345.6	345.6	345.6
2.5°	339.7	339.7	339.7	339.7	339.2	339.2	339.2	338.6
5°	332.3	332.3	332.3	331.3	331.8	331.8	330.9	331.3
7.5°	325.0	324.5	323.9	323.9	323.4	323.0	322.5	323.0
10°	316.6	315.2	315.2	314.7	314.7	313.6	313.6	314.1
12.5°	307.3	306.3	306.3	305.8	305.4	304.9	304.3	304.3
15°	297.9	297.0	296.5	296.0	295.5	294.5	295.1	294.5
17.5°	288.6	287.2	287.2	286.7	286.2	285.1	285.1	284.6
20°	277.8	277.3	276.4	276.9	276.4	275.3	274.8	274.8
22.5°	267.1	267.1	266.6	266.6	266.1	265.5	265.0	265.0
25°	256.8	256.3	256.8	256.8	255.2	255.2	255.2	255.7
27.5°	244.9	245.4	244.9	244.9	244.9	244.9	245.4	244.9
30°	233.2	233.2	233.2	233.7	234.6	234.1	234.1	233.7
32.5°	220.4	220.8	220.8	221.3	221.9	222.9	222.9	223.4
35°	207.7	208.6	209.1	208.6	210.1	210.1	211.0	211.0
37.5°	194.4	194.9	195.8	196.3	197.3	197.9	198.3	198.3
40°	180.1	182.1	182.5	183.1	184.6	184.6	185.1	186.0
42.5°	166.9	168.9	169.4	169.9	170.8	172.2	171.8	172.7
45°	154.2	155.6	156.1	156.6	158.0	158.6	158.6	160.0
47.5°	140.4	141.4	141.8	142.8	143.8	144.8	145.8	145.3
50°	126.6	128.1	129.0	129.6	131.1	131.6	132.0	132.5
52.5°	114.3	115.4	115.9	116.3	117.8	118.3	118.7	119.8
55°	102.6	103.1	104.0	103.5	105.1	105.6	106.1	107.0
57.5°	90.9	91.3	91.8	91.8	92.8	93.7	94.2	94.7
60°	79.5	80.6	81.0	81.0	81.0	82.0	82.0	82.0
62.5°	69.2	69.2	69.7	69.7	70.6	70.6	70.6	70.6
65°	58.4	58.9	59.4	59.4	60.3	59.8	60.8	60.3
67.5°	47.2	47.2	48.1	48.1	47.6	48.1	48.1	48.1
70°	35.8	35.8	36.3	36.3	36.3	36.3	36.3	36.3
72.5°	26.5	26.5	26.5	27.1	26.5	26.5	27.1	26.5
75°	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
77.5°	16.2	16.2	16.6	16.6	16.6	16.6	16.6	16.6
80°	13.3	13.3	13.3	13.3	13.8	13.3	13.3	13.3
82.5°	9.8	9.3	9.8	9.3	9.8	9.8	9.8	9.8
85°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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)