

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: P583489

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583489  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC805D010-HM80520840-81WWW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 717.2 lumens  
Efficiency: N/A  
Efficacy: 119.5 lumens/watt  
Spacing Criteria (0/90/45): 1.09 / 1.04 / 1.13  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

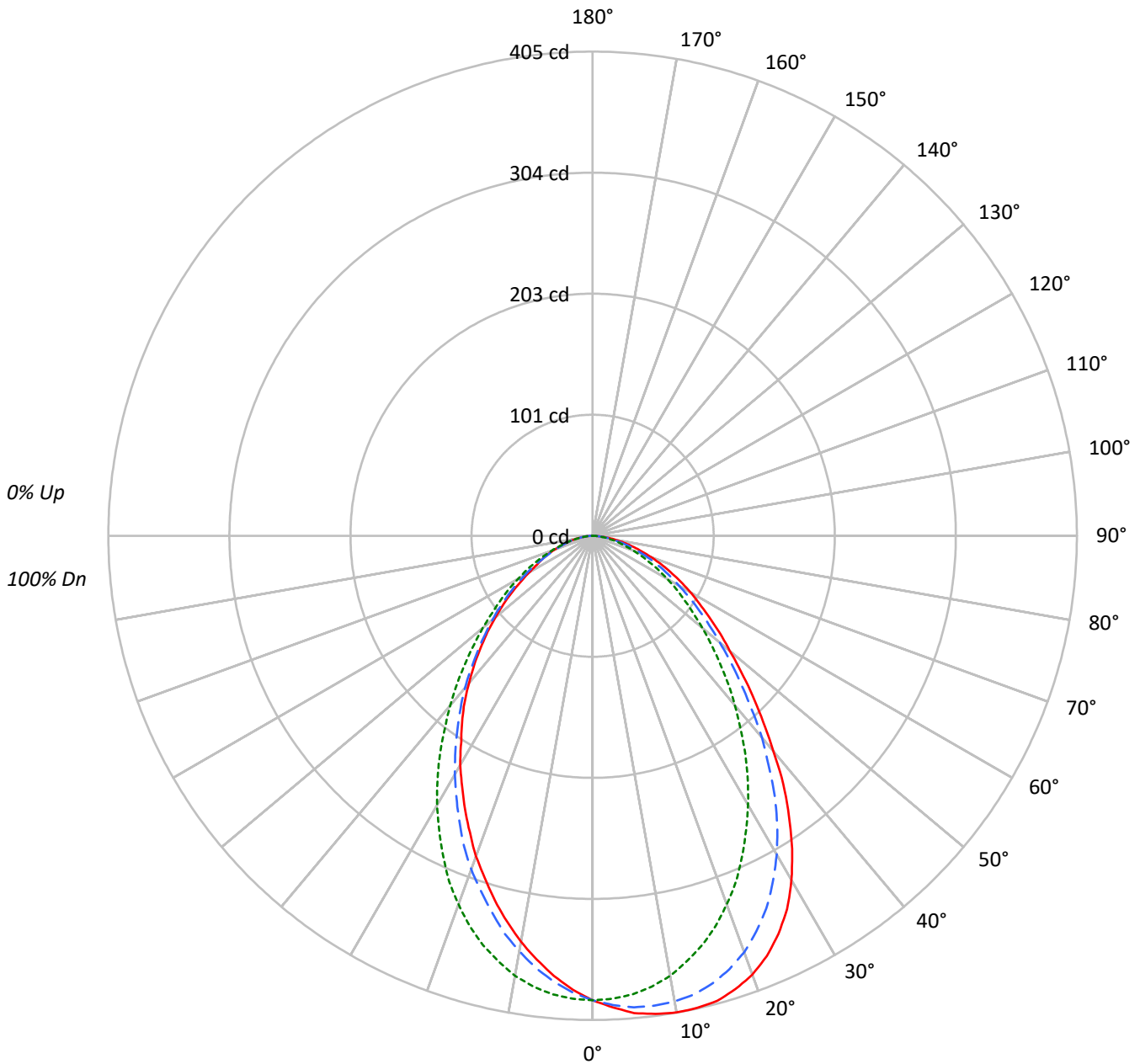
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	93	91	89	87								
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76								
3	94	85	78	72	92	83	77	71	81	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	54	64	59	54	63	57	53	51								
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	11980	11980	11980
5°	12406	11917	11441
10°	12678	11704	10800
15°	12859	11311	10085
20°	12821	10763	9359
25°	12504	10064	8594
30°	11843	9258	7883
35°	10778	8376	7164
40°	9468	7451	6473
45°	8251	6550	5774
50°	7182	5742	5080
55°	6408	5043	4419
60°	5816	4422	3774
65°	5232	3845	3422
70°	4661	3282	3083
75°	4075	2764	2633
80°	3463	2255	2344
85°	2618	1698	1875



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.4	5.1
10°-20°	100.3	14.0
20°-30°	139.2	19.4
30°-40°	143.9	20.1
40°-50°	120.5	16.8
50°-60°	87.5	12.2
60°-70°	55.2	7.7
70°-80°	27.3	3.8
80°-90°	6.8	0.9
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°	275.9	38.5
0°-40°	419.8	58.5
0°-60°	627.8	87.5
0°-90°	717.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	717.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	388	388	388	388	388	
5°	401	396	385	374	370	38
15°	403	388	354	326	316	113
25°	368	344	296	264	253	168
35°	286	265	222	197	190	178
45°	189	176	150	136	132	146
55°	119	109	94	86	82	108
65°	72	63	53	46	47	71
75°	34	28	23	22	22	37
85°	7	6	5	5	5	9
90°	0	0	0	0	0	



TEST NUMBER: P583489

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5
2.5°	394.9	394.9	395.5	394.9	394.9	394.9	394.4	394.4	393.8	393.8	392.9
5°	400.8	399.7	400.8	399.7	399.7	399.7	399.2	398.1	397.5	396.4	396.0
7.5°	403.4	402.8	402.8	402.3	402.3	401.8	401.2	400.8	398.6	398.1	396.4
10°	404.9	404.5	404.5	403.9	402.8	402.8	401.8	401.2	398.6	397.5	395.5
12.5°	404.5	404.5	404.5	403.9	402.3	401.8	400.8	399.2	397.0	394.9	392.9
15°	402.8	402.8	401.8	401.2	399.7	398.6	398.1	395.5	393.3	390.7	387.6
17.5°	397.5	397.5	397.0	396.0	394.4	393.3	392.3	389.6	387.6	383.3	380.2
20°	390.7	390.2	389.6	388.1	386.5	385.9	384.4	380.6	378.0	374.9	370.7
22.5°	380.6	380.2	379.7	378.6	376.0	374.9	373.8	371.2	366.4	363.3	358.0
25°	367.5	367.5	366.4	364.8	362.2	361.1	359.6	356.9	352.8	348.0	343.8
27.5°	352.2	351.7	350.1	349.0	346.9	345.3	342.7	339.6	335.4	331.7	326.4
30°	332.6	332.6	331.7	330.0	327.4	326.4	324.3	320.6	316.4	311.6	307.9
32.5°	310.5	310.5	308.9	307.9	306.3	303.7	303.2	299.0	295.3	291.6	287.4
35°	286.3	286.8	285.7	283.7	281.1	281.1	280.0	276.3	272.1	268.4	265.3
37.5°	262.0	260.5	260.0	258.9	257.4	255.2	254.1	252.6	248.9	246.2	241.4
40°	235.2	235.7	234.6	233.5	233.1	231.5	230.9	228.3	225.6	222.5	220.4
42.5°	210.9	210.9	210.9	209.8	208.8	207.2	206.7	205.2	201.9	199.8	196.7
45°	189.2	187.7	187.7	187.2	186.6	185.7	184.0	183.0	180.9	179.3	175.6
47.5°	168.2	168.8	168.2	167.7	166.1	165.5	165.1	162.9	160.8	159.2	156.6
50°	149.7	150.8	149.7	149.7	148.7	148.2	147.1	145.6	144.0	141.4	138.6
52.5°	134.4	134.4	133.9	133.3	131.8	130.7	130.2	129.8	127.1	125.0	122.8
55°	119.2	119.7	119.7	118.1	117.5	116.5	116.0	114.4	113.4	110.2	108.6
57.5°	105.9	105.5	105.9	105.0	103.9	102.8	102.3	101.3	99.7	97.6	95.4
60°	94.3	93.4	93.4	92.8	91.7	91.2	90.1	88.6	87.0	84.9	83.3
62.5°	82.8	82.2	81.8	81.2	80.2	79.6	79.1	77.6	75.9	74.3	72.8
65°	71.7	71.7	71.2	70.1	69.5	69.1	68.6	67.5	65.4	64.3	62.7
67.5°	61.6	61.2	61.2	60.1	59.0	58.5	58.5	57.5	55.9	54.3	53.3
70°	51.7	52.2	51.7	51.1	50.0	50.0	49.1	48.5	46.4	45.8	44.3
72.5°	42.7	42.7	42.1	42.1	41.2	40.6	40.6	39.5	38.5	37.5	36.4
75°	34.2	34.2	34.2	33.8	33.3	32.2	32.2	31.6	30.5	29.6	28.5
77.5°	26.9	26.3	26.3	25.9	25.3	24.8	24.8	24.3	23.2	22.6	21.7
80°	19.5	19.0	19.0	19.0	18.0	18.4	18.0	17.4	16.9	16.4	15.8
82.5°	12.7	13.2	13.2	12.7	12.1	12.1	12.1	11.6	11.6	11.1	10.5
85°	7.4	7.4	7.4	7.4	6.8	6.8	6.8	6.3	6.3	6.3	5.7
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5
2.5°	392.9	391.8	391.2	390.7	390.7	390.2	389.6	388.5	388.5	387.6	387.0
5°	394.9	393.3	392.3	391.2	390.7	389.6	388.5	387.0	386.5	385.0	383.3
7.5°	395.5	392.9	391.8	389.6	388.5	387.6	385.4	383.9	381.7	380.2	378.0
10°	393.3	391.2	388.5	385.9	385.4	383.9	380.6	378.6	376.0	373.8	370.7
12.5°	390.2	387.0	384.4	381.2	379.7	378.0	374.9	371.7	368.1	364.4	361.1
15°	385.0	381.2	377.5	373.8	371.7	370.1	366.4	362.8	359.1	354.3	351.2
17.5°	377.1	372.7	369.0	364.4	362.2	360.7	355.9	351.7	346.9	342.2	339.0
20°	367.0	361.7	357.5	352.2	350.6	348.0	343.3	338.5	333.2	328.0	324.3
22.5°	353.8	348.6	343.8	338.5	335.9	333.2	328.5	322.7	317.4	313.3	309.5
25°	338.5	333.7	328.0	323.2	320.1	316.8	311.6	306.9	302.1	295.8	292.1
27.5°	321.6	315.9	311.6	305.2	302.1	300.0	294.2	287.9	283.7	277.8	273.6
30°	302.6	297.3	292.7	286.3	283.1	281.1	275.8	269.9	265.7	260.0	255.7
32.5°	282.6	276.9	271.0	266.8	263.1	260.9	255.2	251.5	246.2	241.4	236.8
35°	260.9	255.2	251.0	245.1	243.1	241.0	236.2	231.5	226.7	222.5	218.8
37.5°	237.8	233.5	228.9	224.6	223.0	221.0	215.1	210.9	207.2	203.0	199.8
40°	215.1	211.4	208.3	204.1	201.5	199.8	195.6	191.9	187.7	185.1	181.9
42.5°	194.5	190.3	187.2	184.0	181.3	179.8	176.1	173.4	170.3	167.7	164.0
45°	173.0	170.8	167.1	164.5	162.9	160.8	158.1	155.0	152.4	150.2	147.6
47.5°	153.9	151.9	149.3	146.0	145.0	143.4	140.8	138.6	136.6	134.4	131.8
50°	136.6	133.9	131.8	129.8	128.7	127.1	124.5	123.4	121.9	119.7	118.1
52.5°	120.8	118.6	116.5	113.8	113.4	112.3	110.7	108.6	107.0	105.9	105.0
55°	106.5	104.4	102.8	100.7	100.2	99.1	97.1	96.0	94.9	93.8	92.8
57.5°	93.8	91.7	89.7	88.6	87.5	86.4	85.9	84.4	83.3	82.8	81.8
60°	82.2	80.2	78.5	77.0	76.5	75.9	74.8	73.9	72.8	71.7	71.2
62.5°	71.2	69.1	68.0	66.9	66.0	66.0	64.9	63.8	62.7	62.2	61.2
65°	61.2	60.1	58.5	57.0	56.4	56.4	54.8	54.3	53.7	52.7	51.7
67.5°	51.7	50.6	49.1	48.5	48.0	47.4	46.9	45.8	44.8	44.3	43.2
70°	43.2	42.1	41.2	40.6	40.1	39.5	38.5	37.9	36.9	36.4	35.9
72.5°	34.8	34.2	33.3	32.7	32.2	31.6	31.1	30.5	29.6	29.0	28.5
75°	27.9	27.4	26.3	25.9	25.3	25.3	24.8	23.7	23.2	23.2	22.6
77.5°	21.1	20.6	20.0	19.5	19.0	19.0	18.4	18.0	17.4	17.4	16.9
80°	15.3	14.7	14.2	14.2	14.2	13.8	13.2	13.2	12.7	12.7	12.1
82.5°	10.1	10.1	9.5	9.5	9.5	9.0	9.0	8.4	8.4	8.4	8.4
85°	5.7	5.7	5.7	5.3	5.3	5.3	5.3	5.3	5.3	4.8	5.3
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.2	2.2	2.2
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°	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5
2.5°	386.5	385.9	385.0	385.0	383.9	383.9	383.3	382.8	382.3	381.7	381.2
5°	382.8	380.6	379.7	379.1	378.0	377.5	376.0	374.9	374.3	373.3	372.3
7.5°	376.0	373.8	371.7	371.2	370.7	368.6	367.0	365.4	364.4	363.3	362.2
10°	368.1	365.9	363.3	362.2	361.1	358.5	356.5	354.9	352.8	350.6	350.1
12.5°	358.5	355.4	352.2	351.2	349.5	346.9	344.9	342.2	340.7	338.0	337.4
15°	347.5	343.8	341.1	338.5	337.4	334.8	331.1	329.1	325.8	324.7	322.1
17.5°	334.3	330.6	326.9	325.8	324.3	320.6	316.8	314.2	311.1	309.5	307.9
20°	320.6	315.9	312.2	311.1	308.9	305.8	302.1	299.5	296.9	293.7	292.1
22.5°	304.8	299.5	296.4	293.7	293.1	289.4	285.2	283.1	281.1	278.4	276.3
25°	287.4	282.6	278.9	276.9	275.8	272.6	269.4	266.8	263.6	262.0	259.4
27.5°	269.4	266.2	261.5	259.4	257.8	255.2	251.5	249.9	246.7	244.7	243.1
30°	252.1	247.3	244.7	242.0	240.5	237.8	234.6	233.1	230.4	228.3	226.7
32.5°	233.1	229.9	226.2	225.2	223.0	220.4	218.3	215.7	213.5	211.4	210.9
35°	215.7	211.4	207.8	206.7	205.2	202.4	201.5	199.8	197.1	196.7	194.5
37.5°	196.7	194.5	190.3	188.8	188.3	186.1	184.0	183.0	181.3	179.8	179.3
40°	178.7	176.1	174.0	172.4	171.4	169.7	167.7	167.1	166.1	164.0	163.5
42.5°	161.8	159.2	157.2	156.6	155.0	153.5	152.4	150.8	150.2	149.7	148.7
45°	145.6	144.0	141.8	141.4	140.8	138.6	137.7	136.6	135.5	135.0	133.9
47.5°	130.7	129.2	127.6	127.1	126.0	125.4	123.9	123.4	121.9	121.3	120.8
50°	116.5	115.5	114.4	113.8	112.9	112.3	111.2	110.2	109.2	108.6	108.1
52.5°	103.9	102.8	101.7	101.3	100.7	99.7	98.6	97.6	97.1	96.5	96.0
55°	91.7	90.7	90.1	89.7	89.1	88.6	87.0	86.4	85.9	85.5	84.4
57.5°	80.7	79.6	78.5	78.5	78.0	77.6	76.5	75.4	75.4	74.3	73.3
60°	70.6	69.5	68.6	68.0	67.5	66.4	66.0	65.4	64.9	64.3	63.3
62.5°	60.1	59.6	58.5	58.5	57.5	57.0	56.4	55.9	55.4	54.3	53.7
65°	51.1	50.6	49.6	49.1	49.1	48.5	47.4	46.9	46.4	46.4	45.8
67.5°	42.7	42.1	41.2	40.6	40.6	40.1	39.5	39.5	39.0	38.5	39.0
70°	35.3	34.2	34.2	33.8	33.8	33.3	32.7	32.7	32.7	33.3	33.3
72.5°	27.9	27.4	26.9	26.9	26.9	26.9	26.3	26.3	26.9	27.4	27.4
75°	22.1	21.7	21.7	21.7	21.1	21.1	21.7	21.7	22.1	22.1	22.1
77.5°	16.4	16.4	16.4	16.4	16.4	16.4	16.9	16.9	17.4	17.4	17.4
80°	12.1	12.1	12.1	12.1	12.1	12.7	12.7	12.7	12.7	12.7	13.2
82.5°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	9.0	9.0	9.0	9.0
85°	4.8	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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: P583489

CATALOG NUMBER: HC805D010-HM80520840-81WWW

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5
2.5°	380.6	380.6	380.6	381.2	380.2	380.2	380.2	380.2
5°	371.7	371.2	370.7	371.2	370.1	370.1	369.6	369.6
7.5°	360.7	360.2	359.6	359.6	358.5	358.5	358.0	357.5
10°	348.6	347.5	348.0	346.9	346.4	345.9	345.3	344.9
12.5°	335.4	334.3	333.7	332.6	331.7	331.1	331.7	330.6
15°	321.2	319.5	319.0	317.9	316.8	316.4	316.4	315.9
17.5°	305.2	304.3	303.7	302.6	302.1	301.0	300.6	300.0
20°	290.5	287.9	288.4	287.4	286.8	284.8	284.8	285.2
22.5°	274.2	272.6	271.6	270.5	269.9	269.0	269.0	268.4
25°	257.8	256.3	255.7	254.7	254.1	253.0	252.6	252.6
27.5°	242.0	239.9	239.9	238.8	237.8	237.2	236.8	236.2
30°	225.2	223.6	223.0	223.0	222.5	222.5	221.0	221.4
32.5°	209.4	208.3	207.8	206.7	206.7	206.1	206.1	204.6
35°	193.6	191.9	192.5	191.4	190.9	190.3	190.9	190.3
37.5°	178.2	177.2	177.2	176.1	176.1	175.6	175.0	176.1
40°	162.9	162.4	161.8	161.4	161.8	161.4	160.3	160.8
42.5°	147.6	147.6	147.1	147.1	146.6	146.6	146.6	146.6
45°	133.9	133.3	133.3	132.9	132.9	132.9	132.9	132.4
47.5°	120.2	119.7	119.7	119.7	119.2	119.2	118.6	119.2
50°	107.0	107.0	106.5	106.5	107.0	106.5	105.9	105.9
52.5°	94.9	94.9	94.3	94.3	93.8	93.4	93.8	93.8
55°	83.8	83.3	82.8	82.8	82.2	81.8	81.8	82.2
57.5°	73.3	72.8	72.2	72.2	71.2	70.6	70.6	70.6
60°	63.3	62.2	62.2	61.6	61.6	61.2	61.2	61.2
62.5°	53.7	53.3	53.3	53.3	53.3	52.7	52.7	52.7
65°	45.8	45.8	45.8	46.4	46.4	46.9	46.9	46.9
67.5°	39.5	40.1	40.1	40.1	40.6	40.6	40.6	40.1
70°	33.8	33.8	33.8	34.2	34.2	34.2	34.2	34.2
72.5°	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
75°	22.1	22.6	22.6	22.6	22.1	22.6	22.6	22.1
77.5°	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
80°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
82.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
85°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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)