

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: P583507

Luminaire Tested: **HC805D010-HM80520927-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583507
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-HM80520927-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 545.4 lumens
Efficiency: N/A
Efficacy: 90.9 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

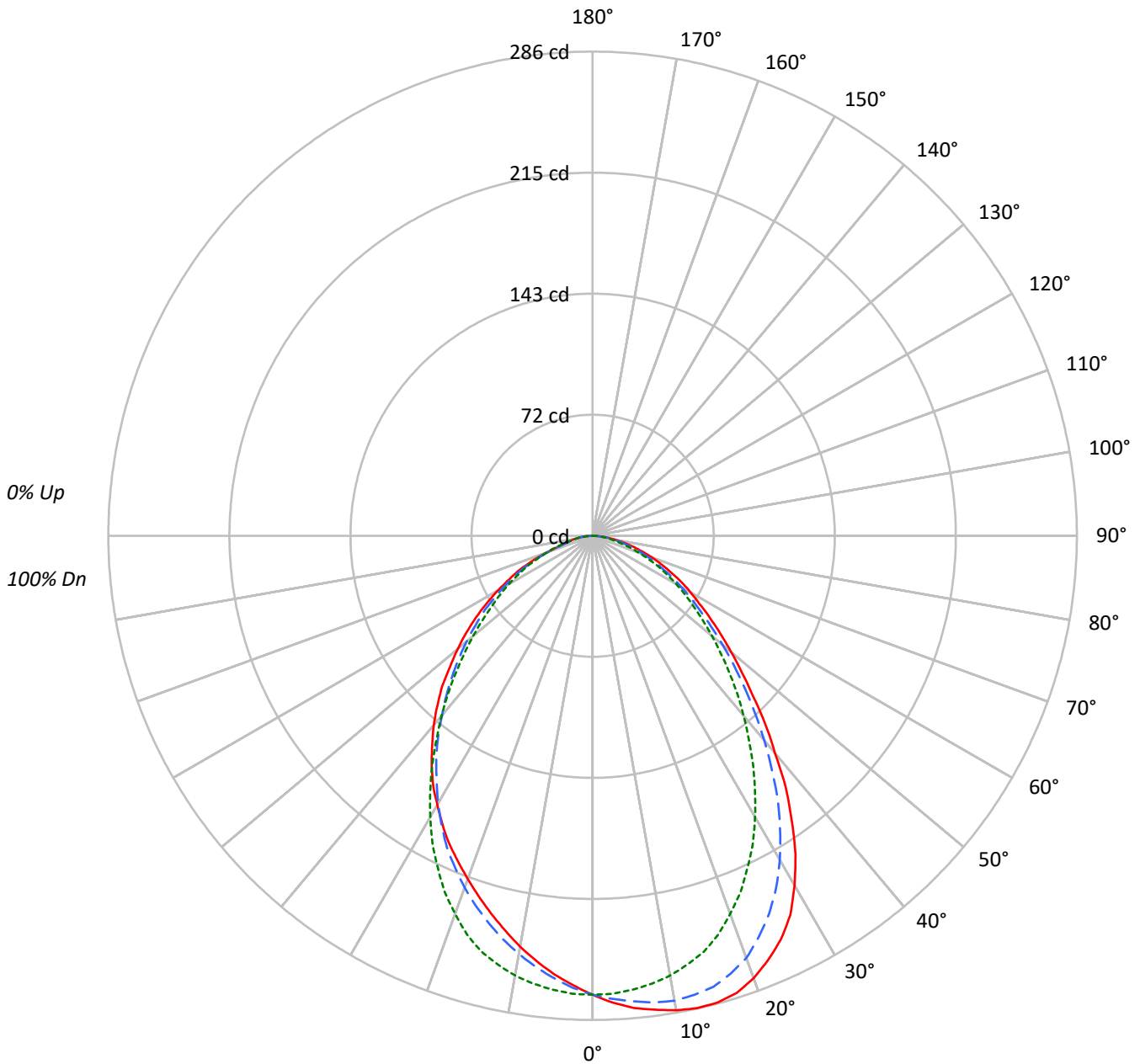
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8360	8360	8360
5°	8667	8333	8048
10°	8911	8260	7718
15°	9111	8115	7378
20°	9126	7797	7078
25°	8952	7363	6825
30°	8489	6829	6530
35°	7713	6219	6238
40°	6747	5579	5877
45°	5848	4971	5477
50°	5119	4413	4989
55°	4554	3914	4511
60°	4114	3515	3966
65°	3714	3094	3459
70°	3336	2597	2570
75°	2943	2073	1930
80°	2468	1705	1847
85°	1911	1486	1663



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	4.7
10°-20°	72.0	13.2
20°-30°	103.0	18.9
30°-40°	109.4	20.1
40°-50°	94.2	17.3
50°-60°	70.4	12.9
60°-70°	44.9	8.2
70°-80°	20.4	3.7
80°-90°	5.4	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°	200.6	36.8
0°-40°	310.0	56.8
0°-60°	474.6	87.0
0°-90°	545.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	545.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	271	271	271	271	271	
5°	280	276	269	262	260	27
15°	285	276	254	237	231	80
25°	263	246	216	203	201	120
35°	205	191	165	161	166	128
45°	134	127	114	117	126	104
55°	85	78	73	79	84	76
65°	51	45	42	44	47	51
75°	25	21	17	16	16	26
85°	5	5	4	5	5	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°	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1
2.5°	276.1	275.4	275.8	275.4	275.8	275.8	275.1	275.1	275.1	275.1	273.9
5°	280.0	279.6	279.6	279.3	278.9	279.3	278.9	278.4	277.7	277.3	276.1
7.5°	282.4	282.4	282.4	282.4	281.9	281.5	281.2	280.5	279.6	278.9	278.1
10°	284.6	285.0	284.6	284.3	283.9	283.1	282.7	281.9	280.8	279.6	278.9
12.5°	285.8	285.8	285.4	285.4	284.6	284.3	283.1	281.9	280.8	279.6	277.7
15°	285.4	285.4	285.0	284.6	283.4	283.1	282.4	281.2	279.3	277.7	275.8
17.5°	283.1	282.7	281.9	281.9	280.5	280.0	279.3	277.7	275.8	273.5	271.1
20°	278.1	278.1	277.7	277.3	275.8	274.6	273.9	272.0	270.4	267.6	265.4
22.5°	271.1	272.0	271.1	270.4	268.5	268.1	266.9	264.7	262.3	259.3	256.5
25°	263.1	262.7	262.3	261.5	260.0	259.3	257.7	255.3	253.0	249.6	246.5
27.5°	252.7	251.1	251.1	249.6	248.4	247.3	246.5	244.2	241.1	238.4	234.6
30°	238.4	238.8	236.9	236.5	234.6	233.8	232.2	229.9	227.3	224.2	221.1
32.5°	223.0	221.8	221.8	220.4	218.8	217.6	217.3	214.5	212.2	209.1	206.1
35°	204.9	204.9	203.7	203.4	201.8	201.1	199.9	198.3	195.7	193.0	190.7
37.5°	187.2	186.4	186.0	185.3	184.1	182.9	182.9	180.3	179.9	176.8	173.7
40°	167.6	168.3	167.6	166.4	166.0	165.2	164.8	163.3	162.2	159.4	157.5
42.5°	150.9	150.2	150.2	149.9	148.3	148.3	147.5	146.8	144.8	144.0	141.7
45°	134.1	134.8	133.7	134.1	132.5	132.5	132.5	131.0	129.4	128.3	126.8
47.5°	119.5	119.8	119.8	118.6	118.3	118.3	117.4	116.7	115.5	114.0	112.9
50°	106.7	107.1	106.3	105.9	105.1	104.7	104.7	103.2	102.5	100.9	100.2
52.5°	95.2	95.2	94.8	94.8	93.6	93.6	92.8	91.7	90.9	90.1	88.2
55°	84.7	84.7	84.4	83.9	83.9	82.8	82.5	81.3	80.6	79.0	77.8
57.5°	74.7	75.1	74.7	74.3	74.0	73.6	72.8	71.7	70.9	69.7	68.9
60°	66.7	66.7	66.2	65.8	65.1	64.8	64.3	63.6	62.4	61.6	60.4
62.5°	58.9	58.5	58.2	57.8	57.0	57.0	56.3	55.4	54.3	53.5	52.8
65°	50.9	50.9	50.5	50.5	50.0	49.3	49.0	48.5	47.0	46.6	45.0
67.5°	43.6	43.9	43.1	43.1	42.4	42.4	42.0	40.8	40.5	39.6	38.9
70°	37.0	37.0	37.0	36.6	35.8	35.4	35.1	34.2	33.9	33.2	32.3
72.5°	30.4	30.4	30.0	30.0	29.7	29.3	28.8	28.1	28.1	27.3	26.6
75°	24.7	24.7	24.3	23.9	23.5	23.5	23.1	22.7	21.9	21.5	21.2
77.5°	18.9	18.9	18.9	18.4	18.1	18.1	18.1	17.4	16.5	16.5	16.2
80°	13.9	13.9	13.5	13.5	13.0	13.0	13.0	12.7	12.3	12.0	11.6
82.5°	9.2	9.2	9.2	9.2	8.9	8.9	8.9	8.5	8.1	8.1	8.1
85°	5.4	5.4	5.4	5.4	5.0	5.0	5.0	5.0	5.0	4.7	4.7
87.5°	2.3	1.9	2.3	1.9	2.3	1.9	2.3	1.9	1.9	1.9	1.9
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°	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1
2.5°	274.2	273.9	273.5	273.0	273.0	272.7	272.0	271.6	271.1	270.8	270.8
5°	275.8	275.4	274.6	273.9	273.5	272.7	272.0	271.1	270.4	269.2	268.8
7.5°	277.0	275.8	275.1	273.5	273.0	272.3	271.1	270.0	268.5	266.9	265.7
10°	277.0	275.4	274.2	272.3	271.6	270.8	269.2	267.3	265.4	263.8	261.9
12.5°	276.1	274.2	272.3	270.4	269.2	268.1	265.7	263.8	261.5	259.3	257.7
15°	273.5	271.1	268.8	266.6	265.4	263.8	261.5	258.8	256.5	254.2	251.5
17.5°	268.5	266.2	263.5	260.7	259.3	258.1	254.6	252.7	249.2	246.9	244.5
20°	261.9	259.3	255.8	253.0	251.1	249.9	247.3	243.8	241.1	237.6	235.3
22.5°	253.4	249.9	246.5	243.8	241.9	240.4	236.9	233.4	231.1	228.0	225.3
25°	243.5	240.0	236.5	232.7	230.7	229.2	226.1	223.0	219.9	216.4	214.1
27.5°	231.5	227.7	224.6	221.1	219.2	216.9	213.4	210.3	207.2	204.9	201.8
30°	218.3	214.1	211.0	207.6	205.6	203.7	200.3	197.3	194.5	191.8	190.3
32.5°	202.7	199.5	196.4	193.0	191.4	190.3	186.9	183.7	180.6	178.4	177.2
35°	187.6	184.1	181.5	178.4	176.4	175.2	172.1	169.5	167.9	165.2	163.7
37.5°	171.8	169.1	166.0	162.9	161.7	160.6	158.4	155.6	153.3	151.4	150.6
40°	155.3	152.9	150.2	148.3	147.1	146.0	144.0	142.1	140.6	138.6	137.9
42.5°	139.5	137.9	135.6	133.2	132.1	131.7	129.4	127.8	127.1	126.3	125.6
45°	125.2	122.8	121.4	119.8	118.6	117.9	116.7	115.5	114.8	114.0	113.2
47.5°	111.3	109.4	107.8	106.7	105.6	105.1	104.4	103.2	102.5	102.5	102.5
50°	98.6	97.1	95.5	94.8	94.3	93.6	92.8	92.4	92.0	92.0	92.0
52.5°	87.4	85.9	84.7	83.9	83.9	83.2	82.5	82.0	82.0	82.0	82.0
55°	77.1	75.9	75.1	74.3	73.6	73.1	73.1	73.1	72.8	72.8	73.1
57.5°	67.8	67.0	65.8	65.1	64.8	64.8	64.3	63.9	64.3	64.8	65.1
60°	59.4	58.5	58.2	57.0	57.0	57.0	56.6	56.6	56.6	57.0	57.3
62.5°	51.6	51.2	50.5	50.0	49.7	49.7	49.3	49.3	49.3	49.3	49.7
65°	44.6	43.9	43.1	43.1	43.1	42.7	42.7	42.0	42.4	42.4	42.0
67.5°	38.2	37.3	37.0	36.6	36.1	36.1	35.8	35.4	35.1	35.1	35.1
70°	32.0	31.2	31.2	30.4	30.4	30.0	29.7	29.7	29.3	28.8	28.5
72.5°	25.9	25.4	25.0	24.7	24.7	24.7	24.3	23.9	23.5	23.1	22.4
75°	20.5	20.5	19.6	19.3	19.3	18.9	18.4	18.1	17.7	17.4	17.0
77.5°	15.8	15.4	14.6	14.2	14.2	14.2	13.9	13.5	13.0	12.7	12.3
80°	11.6	11.1	10.8	10.4	10.4	10.4	10.1	10.1	9.6	9.6	9.6
82.5°	7.7	7.7	7.3	7.3	7.3	7.3	6.9	6.9	6.9	6.9	6.9
85°	4.7	4.7	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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°	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1
2.5°	270.0	270.0	269.2	268.8	268.5	268.8	268.1	267.6	267.3	267.3	266.9
5°	267.6	267.3	265.7	265.4	265.0	264.7	263.8	263.1	262.3	261.9	261.5
7.5°	264.7	263.5	261.9	261.5	261.2	260.0	258.8	258.1	256.9	256.5	255.8
10°	260.3	258.8	257.7	256.5	255.8	254.6	253.4	252.3	250.8	250.4	249.2
12.5°	255.3	253.4	251.1	250.8	249.6	248.0	246.5	245.4	244.2	243.5	242.3
15°	249.2	247.3	245.0	243.8	242.6	241.6	239.5	238.1	236.9	235.7	234.6
17.5°	241.9	239.5	237.6	236.5	235.7	233.8	232.2	230.3	229.2	228.0	226.8
20°	233.1	231.1	228.4	227.3	226.8	225.3	223.4	222.6	221.1	219.9	219.2
22.5°	223.0	221.1	218.8	218.0	216.4	215.7	213.8	212.9	212.2	211.0	210.7
25°	211.9	210.0	208.0	207.6	206.5	205.6	204.6	203.4	203.4	202.2	202.2
27.5°	200.3	198.3	196.8	196.1	195.7	194.9	193.8	193.3	193.0	192.6	192.6
30°	187.9	185.7	184.9	184.5	184.1	183.4	182.9	182.2	182.5	182.9	182.5
32.5°	174.9	174.0	172.6	171.8	172.1	171.8	171.1	171.8	171.4	172.1	172.6
35°	162.2	161.4	160.6	160.6	159.8	159.8	159.8	160.3	161.0	161.4	162.2
37.5°	149.9	148.7	148.3	147.9	148.3	148.3	148.3	149.0	149.9	150.6	151.8
40°	136.7	136.0	136.0	136.0	136.0	137.2	136.7	137.5	138.3	139.5	140.6
42.5°	124.4	124.4	124.8	124.8	124.8	124.8	125.6	126.8	127.8	129.0	130.2
45°	112.9	112.9	112.9	113.6	113.6	114.0	115.5	116.3	117.1	118.3	119.5
47.5°	102.1	102.1	102.5	102.8	103.2	104.0	104.7	105.9	107.1	107.8	109.0
50°	92.0	92.4	93.2	94.0	94.0	94.3	95.5	96.2	97.1	98.3	98.6
52.5°	82.5	83.2	83.9	84.4	84.7	85.5	85.9	87.0	87.4	88.6	88.9
55°	73.6	74.0	75.1	75.5	75.5	76.2	77.1	77.8	79.0	79.0	79.7
57.5°	65.5	65.8	66.7	67.0	66.7	67.8	68.2	68.9	69.3	70.1	70.5
60°	57.3	58.2	58.5	58.5	58.9	59.4	60.1	60.1	60.8	61.6	61.6
62.5°	49.7	50.0	50.5	50.9	51.2	50.9	51.9	51.9	52.8	53.1	53.9
65°	42.4	42.7	42.7	43.1	43.1	43.6	43.6	43.9	44.3	45.0	45.5
67.5°	35.1	35.1	35.1	35.4	35.1	35.4	35.4	35.8	35.8	36.6	37.0
70°	28.5	28.1	27.8	27.8	27.8	27.8	27.3	27.8	27.8	28.1	28.1
72.5°	21.9	21.5	21.2	20.8	20.8	20.5	20.0	20.5	20.5	20.8	20.8
75°	16.5	15.8	15.8	15.8	15.4	15.4	15.4	15.8	15.8	15.8	16.2
77.5°	12.3	12.3	12.0	12.0	12.0	12.3	12.3	12.7	12.7	12.7	12.7
80°	9.2	9.6	9.6	9.6	9.6	10.1	10.1	10.1	10.1	10.4	10.4
82.5°	6.9	6.9	6.9	6.9	7.3	7.3	7.3	7.3	7.3	7.3	7.3
85°	4.2	4.7	4.7	4.2	4.7	4.7	4.7	4.7	4.7	4.7	4.7
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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°	271.1	271.1	271.1	271.1	271.1	271.1	271.1	271.1
2.5°	266.6	266.6	266.6	266.6	266.2	266.2	266.2	265.7
5°	260.7	260.7	260.7	260.0	260.3	260.3	259.6	260.0
7.5°	255.0	254.6	254.2	254.2	253.9	253.4	253.0	253.4
10°	248.4	247.3	247.3	246.9	246.9	246.1	246.1	246.5
12.5°	241.1	240.4	240.4	240.0	239.5	239.2	238.8	238.8
15°	233.8	233.1	232.7	232.2	231.9	231.1	231.5	231.1
17.5°	226.5	225.3	225.3	224.9	224.6	223.8	223.8	223.4
20°	218.0	217.6	216.9	217.3	216.9	216.1	215.7	215.7
22.5°	209.5	209.5	209.1	209.1	208.8	208.4	208.0	208.0
25°	201.5	201.1	201.5	201.5	200.3	200.3	200.3	200.6
27.5°	192.2	192.6	192.2	192.2	192.2	192.2	192.6	192.2
30°	182.9	182.9	182.9	183.4	184.1	183.7	183.7	183.4
32.5°	173.0	173.3	173.3	173.7	174.0	174.9	174.9	175.2
35°	162.9	163.7	164.1	163.7	164.8	164.8	165.7	165.7
37.5°	152.5	152.9	153.7	154.1	154.9	155.3	155.6	155.6
40°	141.4	142.9	143.3	143.6	144.8	144.8	145.2	146.0
42.5°	131.0	132.5	132.9	133.2	134.1	135.1	134.8	135.6
45°	120.9	122.1	122.5	122.8	124.0	124.4	124.4	125.6
47.5°	110.1	111.0	111.3	112.0	112.9	113.6	114.4	114.0
50°	99.4	100.5	101.3	101.7	102.8	103.2	103.7	104.0
52.5°	89.8	90.5	90.9	91.3	92.4	92.8	93.2	94.0
55°	80.6	80.9	81.6	81.3	82.5	82.8	83.2	83.9
57.5°	71.2	71.7	72.1	72.1	72.8	73.6	74.0	74.3
60°	62.4	63.2	63.6	63.6	63.6	64.3	64.3	64.3
62.5°	54.3	54.3	54.7	54.7	55.4	55.4	55.4	55.4
65°	45.8	46.2	46.6	46.6	47.4	47.0	47.8	47.4
67.5°	37.0	37.0	37.7	37.7	37.3	37.7	37.7	37.7
70°	28.1	28.1	28.5	28.5	28.5	28.5	28.5	28.5
72.5°	20.8	20.8	20.8	21.2	20.8	20.8	21.2	20.8
75°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
77.5°	12.7	12.7	13.0	13.0	13.0	13.0	13.0	13.0
80°	10.4	10.4	10.4	10.4	10.8	10.4	10.4	10.4
82.5°	7.7	7.3	7.7	7.3	7.7	7.7	7.7	7.7
85°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)