

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: P583549

Luminaire Tested: **HC805D010-HM80520940-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583549
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC805D010-HM80520940-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 660.5 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.08 / 1.17
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

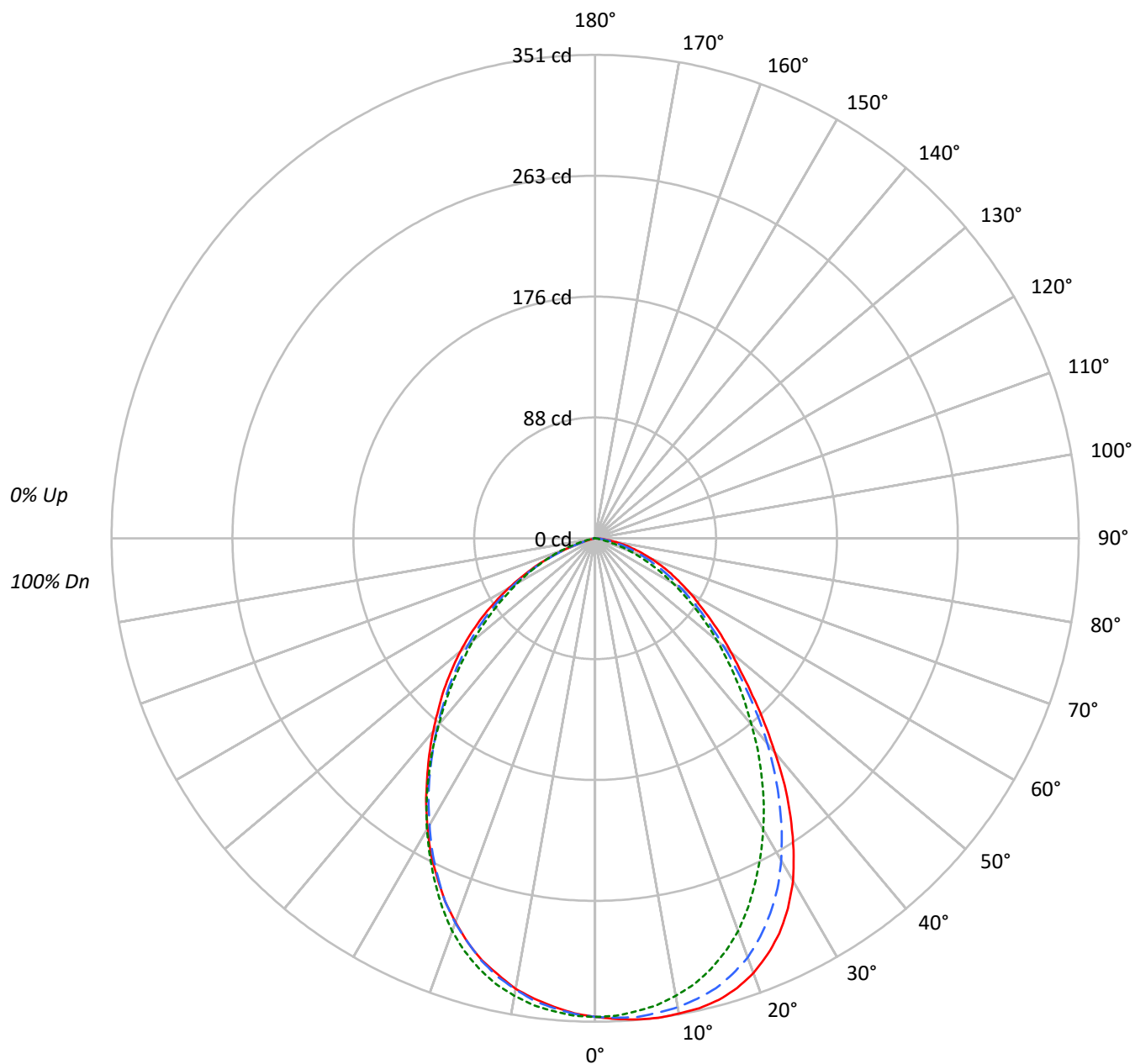
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P583549

CATALOG NUMBER: HC805D010-HM80520940-81RWWC

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77		
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67		
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59		
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52		
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35		
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10716	10716	10716
5°	10856	10670	10571
10°	10972	10562	10402
15°	11078	10340	10130
20°	11023	9956	9730
25°	10769	9363	9238
30°	10226	8692	8656
35°	9309	7932	7999
40°	8164	7097	7358
45°	7043	6310	6759
50°	6169	5541	6121
55°	5462	4763	5387
60°	4921	4009	4465
65°	4436	3210	3415
70°	3886	2344	1875
75°	3324	1215	500
80°	2557	337	89
85°	1663	0	0



TEST NUMBER: P583549

CATALOG NUMBER: HC805D010-HM80520940-81RWWC

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	5.0
10°-20°	92.2	14.0
20°-30°	130.8	19.8
30°-40°	137.7	20.8
40°-50°	117.2	17.7
50°-60°	84.7	12.8
60°-70°	48.1	7.3
70°-80°	15.2	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°	255.8	38.7
0°-40°	393.5	59.6
0°-60°	595.3	90.1
0°-90°	660.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	660.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	351	349	345	342	342	33
15°	347	338	324	318	317	98
25°	316	301	275	270	272	145
35°	247	233	211	209	212	154
45°	162	156	145	148	155	126
55°	102	94	89	94	100	92
65°	61	52	44	44	47	60
75°	28	21	10	5	4	30
85°	5	3	0	0	0	6
90°	0	0	0	0	0	



TEST NUMBER: P583549

CATALOG NUMBER: HC805D010-HM80520940-81RWWC

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5
2.5°	349.4	349.9	348.9	348.9	349.9	348.9	349.4	349.4	348.9	348.9	348.4
5°	350.7	350.4	350.4	350.4	350.7	349.9	349.4	349.9	348.9	348.9	348.9
7.5°	351.2	351.2	350.7	350.4	350.4	350.4	349.9	349.4	348.9	348.0	347.5
10°	350.4	350.4	350.7	349.9	349.9	348.9	348.9	348.0	348.0	347.0	345.7
12.5°	349.4	348.9	348.9	348.0	348.0	347.0	347.0	345.7	345.2	343.8	342.5
15°	347.0	346.7	345.7	345.2	344.7	344.3	343.3	342.9	341.5	339.6	338.3
17.5°	342.5	342.0	341.5	340.5	339.6	339.1	338.8	337.3	335.4	334.1	331.7
20°	335.9	335.4	335.4	334.1	333.6	332.2	331.7	329.9	328.5	325.7	323.9
22.5°	327.1	327.6	326.7	325.7	324.7	323.4	322.5	320.6	318.3	315.5	313.1
25°	316.5	316.8	316.0	315.1	313.6	312.8	311.8	309.1	306.7	303.4	300.7
27.5°	303.0	303.0	303.0	302.0	299.7	299.2	298.3	295.5	292.3	289.6	286.7
30°	287.2	286.7	286.7	285.4	284.4	282.6	281.2	278.9	276.5	273.3	270.0
32.5°	268.1	268.6	267.3	266.3	264.9	264.9	263.1	261.2	258.4	255.2	252.0
35°	247.3	247.8	246.8	246.3	244.1	243.6	243.1	240.8	238.9	236.6	232.9
37.5°	226.0	225.5	225.0	225.0	223.6	222.8	221.8	220.4	217.6	215.7	213.9
40°	202.8	202.8	202.8	202.3	201.8	200.9	200.5	199.5	197.6	195.8	194.4
42.5°	181.8	181.8	181.5	181.0	180.0	180.5	179.6	178.6	176.8	175.4	174.4
45°	161.5	161.5	161.5	162.0	161.0	159.6	159.6	158.7	157.8	156.8	155.5
47.5°	143.4	144.7	143.9	143.4	143.9	142.0	142.0	141.0	140.2	139.2	137.3
50°	128.6	128.6	128.6	127.6	127.1	127.1	125.7	124.8	124.4	123.4	121.6
52.5°	115.0	114.2	114.2	113.7	113.2	112.3	112.3	111.3	109.5	108.6	107.1
55°	101.6	101.6	101.1	100.7	100.2	99.7	99.4	97.9	97.0	95.5	94.2
57.5°	89.5	90.5	90.0	89.1	88.1	88.1	87.3	86.3	84.9	83.6	82.1
60°	79.8	79.4	79.4	78.9	77.9	77.4	77.0	75.7	74.2	72.9	71.5
62.5°	69.5	69.5	69.5	68.7	67.8	67.3	66.8	65.8	64.0	62.6	61.8
65°	60.8	60.3	59.8	59.4	58.9	58.1	57.6	56.6	55.2	53.9	52.4
67.5°	51.9	51.5	51.5	51.0	49.7	49.2	49.2	47.8	46.4	45.0	43.6
70°	43.1	43.1	43.1	42.3	41.8	41.3	40.8	39.9	38.5	37.1	35.7
72.5°	35.7	35.3	35.3	34.8	33.4	32.9	32.4	31.6	30.2	29.2	28.2
75°	27.9	27.9	27.4	26.9	26.5	26.0	25.5	24.5	23.2	21.8	21.3
77.5°	21.3	20.8	20.8	20.5	19.5	19.0	19.0	18.1	16.8	15.8	14.8
80°	14.4	14.8	14.4	13.9	13.4	13.0	12.6	12.1	11.1	10.2	9.3
82.5°	8.9	9.3	8.9	8.9	8.4	7.9	7.9	6.9	6.5	6.0	5.6
85°	4.7	4.7	4.7	4.7	4.2	4.2	4.2	3.7	3.2	2.8	2.8
87.5°	1.4	1.9	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



TEST NUMBER: P583549

CATALOG NUMBER: HC805D010-HM80520940-81RWWC

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5
2.5°	348.9	348.4	348.0	348.0	348.0	348.0	348.0	347.5	347.0	347.0	347.0
5°	348.0	348.0	348.0	347.5	347.0	347.0	346.2	345.7	345.2	344.7	344.3
7.5°	347.0	346.2	345.7	345.2	344.7	344.7	343.8	342.9	342.9	342.0	341.0
10°	344.3	343.8	342.9	342.0	341.5	341.0	340.1	338.8	338.3	337.3	336.4
12.5°	341.0	340.1	339.1	337.3	336.8	336.4	334.6	333.1	332.2	331.7	329.4
15°	336.8	335.0	333.6	331.3	330.9	329.9	328.5	327.1	325.2	323.9	323.0
17.5°	329.4	327.6	325.2	323.0	322.0	322.0	319.7	317.8	315.5	314.6	312.8
20°	320.6	318.3	316.5	313.6	312.3	310.9	309.4	306.7	304.9	303.4	301.2
22.5°	310.4	307.2	304.9	302.0	299.7	298.3	296.0	293.7	291.3	290.0	288.1
25°	297.5	294.6	290.9	288.1	286.7	284.9	282.1	279.7	277.5	275.2	274.2
27.5°	283.0	279.3	276.0	272.8	271.5	270.0	266.8	264.1	262.1	259.9	258.9
30°	267.3	263.6	259.9	257.0	255.7	253.3	251.5	248.3	245.9	244.1	241.7
32.5°	249.2	246.3	243.1	238.9	238.0	236.2	233.4	232.0	229.2	227.8	226.0
35°	229.7	227.8	224.6	221.3	219.9	219.1	216.7	213.9	212.0	210.7	209.7
37.5°	211.2	208.8	205.5	203.3	202.3	200.9	198.1	196.8	194.9	193.9	192.1
40°	191.2	188.9	186.5	185.2	183.7	182.8	181.0	179.6	177.8	176.3	175.8
42.5°	171.6	170.3	168.4	166.6	166.1	164.7	163.7	162.4	161.0	160.5	159.2
45°	154.1	152.6	150.8	148.9	148.4	147.6	147.1	145.7	144.7	144.7	144.7
47.5°	136.5	135.0	133.1	132.3	132.7	130.8	130.8	130.4	129.4	129.4	129.9
50°	120.7	118.7	118.3	117.4	116.5	115.5	116.0	114.6	114.6	115.5	115.0
52.5°	105.8	103.9	103.4	102.6	102.1	102.1	101.6	101.6	101.1	101.6	101.6
55°	92.3	91.0	90.0	89.1	88.6	88.6	88.6	88.1	87.7	88.6	89.1
57.5°	80.3	79.8	78.9	77.4	77.0	76.6	76.1	76.1	76.1	76.1	76.6
60°	69.5	68.7	67.8	66.3	66.3	65.8	65.5	65.0	65.0	65.0	65.0
62.5°	60.3	58.9	57.6	56.6	56.1	55.7	55.2	54.3	54.3	54.3	54.3
65°	51.0	49.7	48.7	47.8	46.8	46.8	46.0	45.5	44.5	44.0	43.1
67.5°	42.3	41.3	40.3	39.0	38.5	38.1	37.1	36.6	35.3	34.8	34.4
70°	34.4	32.9	32.0	31.1	30.6	29.7	28.7	27.9	26.9	26.0	25.0
72.5°	26.9	25.5	24.5	23.7	22.7	22.7	21.3	20.5	19.0	18.1	16.8
75°	20.0	18.6	17.6	16.3	15.8	15.3	13.9	13.0	11.6	10.2	9.3
77.5°	13.4	12.6	11.6	10.2	9.3	9.3	7.9	6.9	6.0	4.7	4.2
80°	8.4	7.4	6.5	5.6	5.6	4.7	4.2	3.2	2.3	1.9	1.4
82.5°	4.7	4.2	3.7	2.8	2.8	2.3	1.9	1.4	1.0	0.5	0.5
85°	2.3	1.9	1.4	1.4	1.0	1.0	1.0	0.5	0.5	0.0	0.0
87.5°	1.0	0.5	0.5	0.5	0.5	0.5	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



TEST NUMBER: P583549

CATALOG NUMBER: HC805D010-HM80520940-81RWWC

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5
2.5°	346.7	346.7	346.2	346.2	346.2	345.7	346.2	345.7	345.7	345.7	346.2
5°	344.7	343.8	343.8	343.3	343.3	342.9	343.3	342.9	342.5	342.0	342.5
7.5°	341.0	340.1	339.6	339.1	339.1	339.1	338.8	338.3	338.8	337.3	338.3
10°	335.9	335.4	334.6	334.1	333.6	334.1	333.6	332.6	332.6	332.6	332.2
12.5°	329.4	328.5	328.0	327.6	326.7	326.7	327.1	326.2	326.2	325.2	325.2
15°	321.5	320.6	319.7	319.7	318.8	318.8	318.3	318.3	317.8	317.3	317.3
17.5°	311.8	310.4	309.4	309.9	309.4	309.1	309.1	308.1	307.6	308.1	308.1
20°	300.2	299.2	298.3	298.8	297.9	297.5	297.9	296.5	297.0	297.0	297.0
22.5°	287.2	286.7	285.4	285.4	284.4	283.9	284.4	284.4	284.9	284.4	284.4
25°	272.8	271.8	271.0	271.0	270.5	270.0	270.5	271.0	270.5	271.0	271.0
27.5°	257.5	256.2	256.2	255.2	255.2	255.7	255.2	255.7	256.2	256.2	257.0
30°	240.8	240.4	239.9	239.4	239.4	239.9	239.9	239.9	240.4	241.3	241.3
32.5°	225.0	224.1	223.1	223.1	224.1	223.6	224.1	224.1	225.0	225.0	226.0
35°	207.9	207.9	207.0	207.4	207.4	207.4	207.4	208.3	209.2	209.7	210.7
37.5°	192.1	190.7	191.2	191.2	191.6	191.2	192.6	192.6	193.4	193.4	194.4
40°	174.9	174.9	175.4	174.9	175.4	175.4	176.3	177.3	177.8	178.6	179.1
42.5°	158.7	159.6	158.7	159.2	159.6	160.0	160.5	161.0	162.9	163.7	165.2
45°	143.9	144.2	144.7	145.2	144.7	145.7	146.2	147.1	148.4	148.9	149.4
47.5°	129.4	129.9	130.4	130.8	130.8	131.8	132.3	133.1	134.1	134.5	135.0
50°	115.5	116.5	116.9	116.9	117.4	118.3	119.2	119.2	120.2	121.6	122.0
52.5°	103.1	103.1	103.9	104.4	104.9	104.9	106.3	106.8	107.1	108.1	109.0
55°	89.1	90.5	91.0	91.0	91.8	92.8	93.2	93.7	93.7	95.5	95.5
57.5°	77.0	77.4	78.4	78.4	78.4	79.8	79.8	80.7	81.2	81.6	82.6
60°	65.0	65.8	65.8	66.3	65.8	66.8	67.3	68.2	68.7	69.2	69.5
62.5°	53.9	53.9	54.3	54.3	54.3	54.3	55.2	55.2	56.1	56.6	57.1
65°	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.6	43.6	44.5
67.5°	33.4	32.9	32.0	32.4	32.0	32.0	31.6	31.6	32.0	32.0	32.9
70°	24.2	23.7	22.7	22.7	22.3	21.8	21.3	20.8	20.5	20.5	20.5
72.5°	15.8	14.8	13.4	13.0	13.0	12.1	11.1	10.7	10.7	10.7	10.7
75°	7.9	6.9	6.0	5.6	5.6	4.7	5.1	4.7	4.7	4.7	4.7
77.5°	3.2	2.3	1.9	1.9	1.9	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	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	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



TEST NUMBER: P583549

CATALOG NUMBER: HC805D010-HM80520940-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	347.5	347.5	347.5	347.5	347.5	347.5	347.5	347.5
2.5°	345.7	345.7	344.7	345.2	345.2	345.2	345.2	345.2
5°	341.5	342.0	341.5	342.0	342.0	341.5	341.5	341.5
7.5°	337.3	337.8	337.3	337.8	337.8	337.8	337.3	337.3
10°	332.2	332.2	332.2	332.2	332.2	331.7	332.2	332.2
12.5°	325.2	325.2	325.2	325.7	325.7	325.2	325.2	324.7
15°	317.8	316.8	317.3	317.8	317.3	317.3	317.3	317.3
17.5°	307.6	308.1	307.6	307.6	307.6	307.6	308.1	307.6
20°	297.0	297.0	297.5	297.0	297.0	297.0	297.0	296.5
22.5°	284.9	284.4	284.4	284.9	284.9	284.4	284.9	284.9
25°	271.5	271.8	271.5	271.5	271.8	271.8	271.8	271.5
27.5°	257.0	257.5	258.0	257.5	257.5	257.5	258.0	258.4
30°	242.2	243.1	242.2	242.2	243.1	242.6	243.1	243.1
32.5°	226.5	227.8	226.8	227.8	227.8	228.3	227.8	228.3
35°	210.7	212.0	212.0	212.0	212.5	212.9	212.9	212.5
37.5°	195.8	196.3	196.3	197.1	197.6	198.1	198.1	197.6
40°	180.5	181.5	181.8	181.8	181.8	182.8	183.7	182.8
42.5°	165.7	166.1	166.6	166.6	167.5	167.9	168.4	168.4
45°	151.3	152.1	152.6	153.1	153.6	154.5	154.1	155.0
47.5°	136.5	137.8	138.3	138.7	139.7	140.2	140.5	141.0
50°	122.9	123.9	123.9	124.8	126.2	126.2	127.1	127.6
52.5°	109.5	110.0	110.5	110.8	111.8	112.8	112.8	113.7
55°	96.5	97.0	97.0	97.4	97.9	99.7	100.2	100.2
57.5°	83.1	83.1	84.0	84.4	84.9	85.8	85.8	85.8
60°	70.0	70.5	70.5	71.0	71.5	72.4	72.9	72.4
62.5°	57.1	57.6	57.6	58.1	58.9	59.4	58.9	58.9
65°	45.0	45.5	45.5	46.0	46.8	46.8	46.4	46.8
67.5°	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9
70°	20.8	20.5	20.0	20.5	20.5	20.5	20.0	20.8
72.5°	10.2	10.7	10.7	10.7	10.7	10.7	10.7	10.2
75°	4.7	4.7	4.2	4.2	4.2	4.7	4.7	4.2
77.5°	1.4	1.4	1.4	1.4	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°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	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)