

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: P593494

Luminaire Tested: **HC807D010-HM80520850-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P593494
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: HC807D010-HM80520850-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 990.7 lumens
Efficiency: N/A
Efficacy: 123.8 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

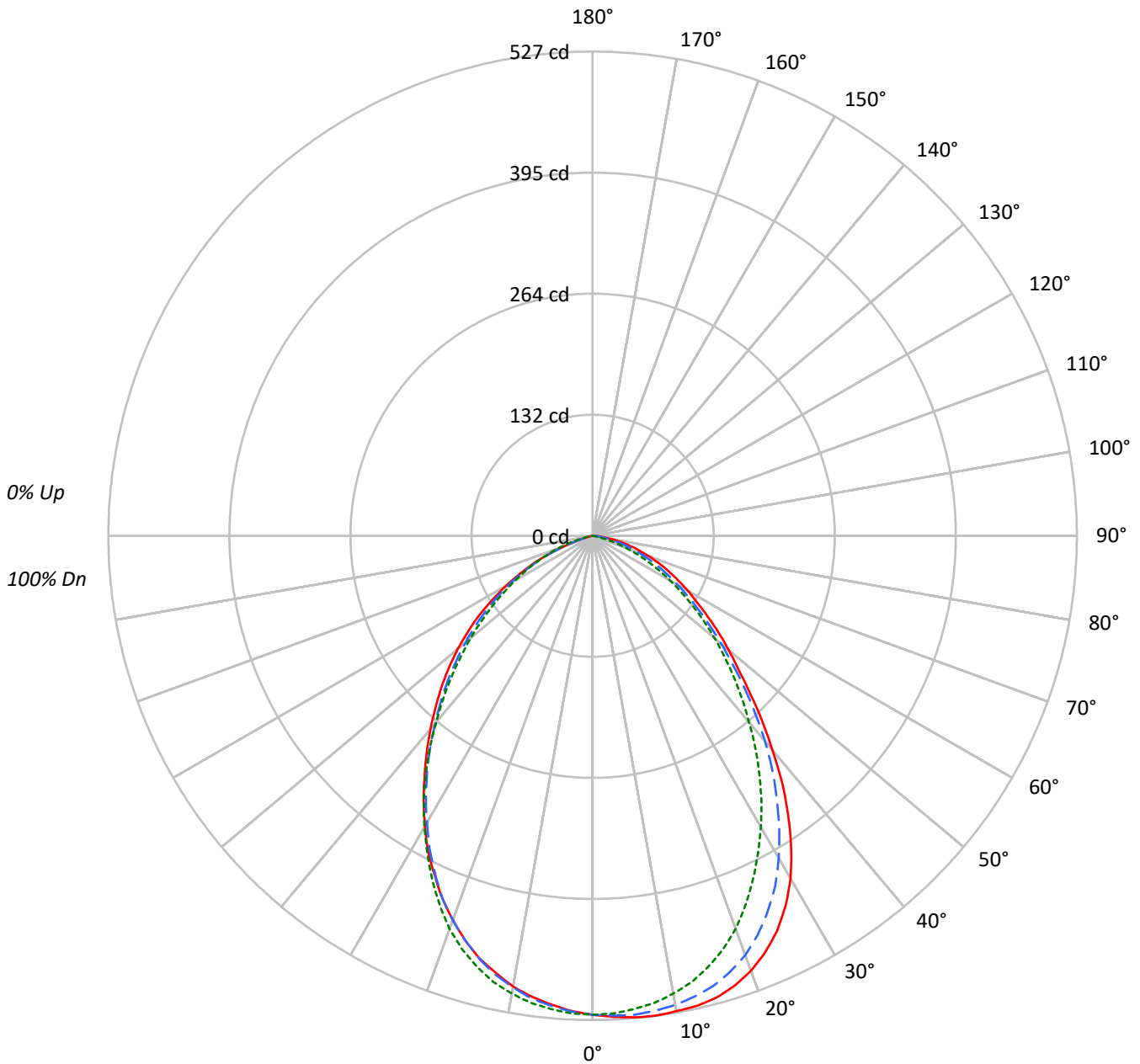
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	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	85	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°	16075	16075	16075
5°	16288	16006	15858
10°	16451	15844	15603
15°	16616	15509	15199
20°	16536	14938	14596
25°	16151	14045	13851
30°	15339	13032	12986
35°	13962	11896	11997
40°	12241	10647	11042
45°	10562	9468	10135
50°	9249	8314	9182
55°	8193	7145	8080
60°	7382	6007	6698
65°	6654	4823	5129
70°	5842	3516	2822
75°	4968	1823	739
80°	3836	479	124
85°	2441	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	5.0
10°-20°	138.3	14.0
20°-30°	196.2	19.8
30°-40°	206.6	20.9
40°-50°	175.7	17.7
50°-60°	127.0	12.8
60°-70°	72.2	7.3
70°-80°	22.7	2.3
80°-90°	2.8	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°	383.7	38.7
0°-40°	590.3	59.6
0°-60°	893.0	90.1
0°-90°	990.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	990.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	521	521	521	521	521	
5°	526	523	517	514	512	50
15°	520	507	486	477	476	147
25°	475	451	413	406	407	217
35°	371	349	316	314	319	231
45°	242	233	217	223	232	188
55°	152	141	133	140	150	137
65°	91	79	66	65	70	90
75°	42	32	15	7	6	45
85°	7	4	0	0	0	9
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°	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3
2.5°	524.1	524.7	523.4	523.4	524.7	523.4	524.1	524.1	523.4	523.4	522.7
5°	526.2	525.4	525.4	525.4	526.2	524.7	524.1	524.7	523.4	523.4	523.4
7.5°	526.9	526.9	526.2	525.4	525.4	525.4	524.7	524.1	523.4	522.0	521.3
10°	525.4	525.4	526.2	524.7	524.7	523.4	523.4	522.0	522.0	520.5	518.5
12.5°	524.1	523.4	523.4	522.0	522.0	520.5	520.5	518.5	517.8	515.8	513.6
15°	520.5	519.9	518.5	517.8	517.1	516.4	515.0	514.3	512.3	509.4	507.4
17.5°	513.6	512.9	512.3	510.9	509.4	508.7	508.1	506.0	503.2	501.1	497.6
20°	503.9	503.2	503.2	501.1	500.5	498.3	497.6	494.8	492.7	488.6	485.8
22.5°	490.7	491.4	490.0	488.6	487.2	485.1	483.7	480.9	477.4	473.2	469.8
25°	474.7	475.4	473.9	472.6	470.5	469.0	467.7	463.5	460.1	455.2	451.0
27.5°	454.5	454.5	454.5	453.0	449.6	449.0	447.5	443.3	438.4	434.3	430.1
30°	430.8	430.1	430.1	428.0	426.6	423.9	421.7	418.2	414.8	409.9	405.1
32.5°	402.2	403.0	400.9	399.5	397.5	397.5	394.6	391.8	387.7	382.8	377.9
35°	370.9	371.6	370.2	369.6	366.0	365.4	364.7	361.2	358.4	354.9	349.4
37.5°	338.9	338.3	337.6	337.6	335.4	334.1	332.7	330.5	326.4	323.6	320.9
40°	304.1	304.1	304.1	303.4	302.7	301.4	300.7	299.2	296.5	293.7	291.6
42.5°	272.8	272.8	272.1	271.4	270.1	270.8	269.4	267.9	265.2	263.1	261.7
45°	242.2	242.2	242.2	242.9	241.5	239.4	239.4	238.0	236.6	235.3	233.1
47.5°	215.1	217.1	215.7	215.1	215.7	212.9	212.9	211.6	210.2	208.8	206.0
50°	192.8	192.8	192.8	191.4	190.7	190.7	188.6	187.3	186.5	185.1	182.4
52.5°	172.6	171.2	171.2	170.5	169.8	168.4	168.4	167.1	164.2	162.9	160.7
55°	152.4	152.4	151.8	151.0	150.3	149.6	148.9	146.9	145.4	143.4	141.2
57.5°	134.3	135.8	135.0	133.6	132.3	132.3	130.9	129.4	127.4	125.2	123.2
60°	119.7	119.0	119.0	118.3	116.9	116.3	115.6	113.4	111.4	109.2	107.2
62.5°	104.4	104.4	104.4	103.0	101.6	100.9	100.3	98.8	96.1	93.9	92.6
65°	91.2	90.5	89.7	89.0	88.4	87.0	86.3	85.0	82.8	80.8	78.6
67.5°	77.9	77.2	77.2	76.6	74.4	73.7	73.7	71.7	69.5	67.5	65.4
70°	64.8	64.8	64.8	63.3	62.6	61.9	61.3	59.9	57.7	55.7	53.5
72.5°	53.5	52.9	52.9	52.2	50.1	49.5	48.8	47.3	45.3	43.9	42.4
75°	41.7	41.7	41.1	40.4	39.7	39.0	38.2	36.9	34.8	32.7	32.0
77.5°	32.0	31.3	31.3	30.6	29.3	28.6	28.6	27.1	25.1	23.7	22.2
80°	21.6	22.2	21.6	20.9	20.2	19.5	18.8	18.0	16.7	15.3	13.9
82.5°	13.3	13.9	13.3	13.3	12.5	11.8	11.8	10.4	9.8	9.1	8.4
85°	6.9	6.9	6.9	6.9	6.2	6.2	6.2	5.6	4.9	4.2	4.2
87.5°	2.0	2.7	2.0	2.0	2.0	2.0	2.0	2.0	1.4	1.4	1.4
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°	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3
2.5°	523.4	522.7	522.0	522.0	522.0	522.0	522.0	521.3	520.5	520.5	520.5
5°	522.0	522.0	522.0	521.3	520.5	520.5	519.2	518.5	517.8	517.1	516.4
7.5°	520.5	519.2	518.5	517.8	517.1	517.1	515.8	514.3	514.3	512.9	511.6
10°	516.4	515.8	514.3	512.9	512.3	511.6	510.1	508.1	507.4	506.0	504.5
12.5°	511.6	510.1	508.7	506.0	505.2	504.5	501.8	499.7	498.3	497.6	494.1
15°	505.2	502.5	500.5	496.9	496.3	494.8	492.7	490.7	487.9	485.8	484.5
17.5°	494.1	491.4	487.9	484.5	483.0	483.0	479.6	476.7	473.2	471.9	469.0
20°	480.9	477.4	474.7	470.5	468.4	466.3	464.3	460.1	457.2	455.2	451.7
22.5°	465.6	460.8	457.2	453.0	449.6	447.5	444.1	440.6	437.1	435.0	432.2
25°	446.1	441.9	436.4	432.2	430.1	427.3	423.1	419.7	416.2	412.8	411.3
27.5°	424.6	419.0	414.1	409.3	407.1	405.1	400.2	396.0	393.3	389.7	388.4
30°	400.9	395.3	389.7	385.6	383.5	380.0	377.3	372.4	368.9	366.0	362.6
32.5°	373.8	369.6	364.7	358.4	357.1	354.2	350.1	348.0	343.8	341.8	338.9
35°	344.5	341.8	336.9	332.0	329.9	328.5	325.0	320.9	318.1	316.0	314.5
37.5°	316.7	313.2	308.3	304.8	303.4	301.4	297.2	295.0	292.3	290.9	288.1
40°	286.8	283.2	279.7	277.7	275.6	274.3	271.4	269.4	266.6	264.5	263.7
42.5°	257.5	255.4	252.6	249.9	249.2	247.1	245.7	243.5	241.5	240.8	238.8
45°	231.1	229.0	226.2	223.5	222.7	221.3	220.6	218.6	217.1	217.1	217.1
47.5°	204.6	202.6	199.8	198.4	199.1	196.2	196.2	195.6	194.2	194.2	194.9
50°	180.9	178.2	177.5	176.0	174.7	173.3	174.0	172.0	172.0	173.3	172.6
52.5°	158.7	155.9	155.2	153.8	153.1	153.1	152.4	152.4	151.8	152.4	152.4
55°	138.5	136.5	135.0	133.6	132.9	132.9	132.9	132.3	131.6	132.9	133.6
57.5°	120.5	119.7	118.3	116.3	115.6	114.8	114.1	114.1	114.1	114.1	114.8
60°	104.4	103.0	101.6	99.5	99.5	98.8	98.1	97.4	97.4	97.4	97.4
62.5°	90.5	88.4	86.3	85.0	84.2	83.5	82.8	81.4	81.4	81.4	81.4
65°	76.6	74.4	73.1	71.7	70.3	70.3	69.0	68.2	66.8	66.1	64.8
67.5°	63.3	61.9	60.6	58.4	57.7	57.1	55.7	55.0	52.9	52.2	51.5
70°	51.5	49.5	48.0	46.6	45.9	44.6	43.1	41.7	40.4	39.0	37.6
72.5°	40.4	38.2	36.9	35.5	34.1	34.1	32.0	30.6	28.6	27.1	25.1
75°	29.9	27.8	26.4	24.4	23.7	22.9	20.9	19.5	17.4	15.3	13.9
77.5°	20.2	18.8	17.4	15.3	13.9	13.9	11.8	10.4	9.1	6.9	6.2
80°	12.5	11.1	9.8	8.4	8.4	6.9	6.2	4.9	3.5	2.7	2.0
82.5°	6.9	6.2	5.6	4.2	4.2	3.5	2.7	2.0	1.4	0.7	0.7
85°	3.5	2.7	2.0	2.0	1.4	1.4	1.4	0.7	0.7	0.0	0.0
87.5°	1.4	0.7	0.7	0.7	0.7	0.7	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3
2.5°	519.9	519.9	519.2	519.2	519.2	518.5	519.2	518.5	518.5	518.5	519.2
5°	517.1	515.8	515.8	515.0	515.0	514.3	515.0	514.3	513.6	512.9	513.6
7.5°	511.6	510.1	509.4	508.7	508.7	508.7	508.1	507.4	508.1	506.0	507.4
10°	503.9	503.2	501.8	501.1	500.5	501.1	500.5	499.0	499.0	499.0	498.3
12.5°	494.1	492.7	492.1	491.4	490.0	490.0	490.7	489.2	489.2	487.9	487.9
15°	482.3	480.9	479.6	479.6	478.1	478.1	477.4	477.4	476.7	476.1	476.1
17.5°	467.7	465.6	464.3	464.9	464.3	463.5	463.5	462.1	461.4	462.1	462.1
20°	450.3	449.0	447.5	448.2	446.8	446.1	446.8	444.8	445.4	445.4	445.4
22.5°	430.8	430.1	428.0	428.0	426.6	425.9	426.6	426.6	427.3	426.6	426.6
25°	409.3	407.9	406.4	406.4	405.7	405.1	405.7	406.4	405.7	406.4	406.4
27.5°	386.2	384.2	384.2	382.8	382.8	383.5	382.8	383.5	384.2	384.2	385.6
30°	361.2	360.5	359.8	359.1	359.1	359.8	359.8	359.8	360.5	362.0	362.0
32.5°	337.6	336.2	334.7	334.7	336.2	335.4	336.2	336.2	337.6	337.6	338.9
35°	311.8	311.8	310.5	311.1	311.1	311.1	311.1	312.5	313.9	314.5	316.0
37.5°	288.1	286.1	286.8	286.8	287.4	286.8	288.8	288.8	290.3	290.3	291.6
40°	262.4	262.4	263.1	262.4	263.1	263.1	264.5	265.9	266.6	267.9	268.6
42.5°	238.0	239.4	238.0	238.8	239.4	240.1	240.8	241.5	244.3	245.7	247.7
45°	215.7	216.4	217.1	217.8	217.1	218.6	219.3	220.6	222.7	223.5	224.1
47.5°	194.2	194.9	195.6	196.2	196.2	197.7	198.4	199.8	201.1	201.8	202.6
50°	173.3	174.7	175.4	175.4	176.0	177.5	178.9	178.9	180.2	182.4	183.1
52.5°	154.5	154.5	155.9	156.5	157.3	157.3	159.4	160.1	160.7	162.2	163.6
55°	133.6	135.8	136.5	136.5	137.8	139.2	139.9	140.5	140.5	143.4	143.4
57.5°	115.6	116.3	117.6	117.6	117.6	119.7	119.7	121.1	121.8	122.5	123.9
60°	97.4	98.8	98.8	99.5	98.8	100.3	100.9	102.3	103.0	103.7	104.4
62.5°	80.8	80.8	81.4	81.4	81.4	81.4	82.8	82.8	84.2	85.0	85.6
65°	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	65.4	65.4	66.8
67.5°	50.1	49.5	48.0	48.8	48.0	48.0	47.3	47.3	48.0	48.0	49.5
70°	36.2	35.5	34.1	34.1	33.5	32.7	32.0	31.3	30.6	30.6	30.6
72.5°	23.7	22.2	20.2	19.5	19.5	18.0	16.7	16.0	16.0	16.0	16.0
75°	11.8	10.4	9.1	8.4	8.4	6.9	7.6	6.9	6.9	6.9	6.9
77.5°	4.9	3.5	2.7	2.7	2.7	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	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: P593494

CATALOG NUMBER: HC807D010-HM80520850-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	521.3	521.3	521.3	521.3	521.3	521.3	521.3	521.3
2.5°	518.5	518.5	517.1	517.8	517.8	517.8	517.8	517.8
5°	512.3	512.9	512.3	512.9	512.9	512.3	512.3	512.3
7.5°	506.0	506.7	506.0	506.7	506.7	506.7	506.0	506.0
10°	498.3	498.3	498.3	498.3	498.3	497.6	498.3	498.3
12.5°	487.9	487.9	487.9	488.6	488.6	487.9	487.9	487.2
15°	476.7	475.4	476.1	476.7	476.1	476.1	476.1	476.1
17.5°	461.4	462.1	461.4	461.4	461.4	461.4	462.1	461.4
20°	445.4	445.4	446.1	445.4	445.4	445.4	445.4	444.8
22.5°	427.3	426.6	426.6	427.3	427.3	426.6	427.3	427.3
25°	407.1	407.9	407.1	407.1	407.9	407.9	407.9	407.1
27.5°	385.6	386.2	386.9	386.2	386.2	386.2	386.9	387.7
30°	363.3	364.7	363.3	363.3	364.7	364.0	364.7	364.7
32.5°	339.6	341.8	340.3	341.8	341.8	342.4	341.8	342.4
35°	316.0	318.1	318.1	318.1	318.7	319.4	319.4	318.7
37.5°	293.7	294.4	294.4	295.8	296.5	297.2	297.2	296.5
40°	270.8	272.1	272.8	272.8	272.8	274.3	275.6	274.3
42.5°	248.4	249.2	249.9	249.9	251.2	251.9	252.6	252.6
45°	226.9	228.2	229.0	229.7	230.4	231.7	231.1	232.4
47.5°	204.6	206.7	207.5	208.0	209.5	210.2	210.9	211.6
50°	184.4	185.8	185.8	187.3	189.3	189.3	190.7	191.4
52.5°	164.2	164.9	165.6	166.3	167.8	169.1	169.1	170.5
55°	144.7	145.4	145.4	146.1	146.9	149.6	150.3	150.3
57.5°	124.6	124.6	126.0	126.7	127.4	128.7	128.7	128.7
60°	105.0	105.8	105.8	106.5	107.2	108.6	109.2	108.6
62.5°	85.6	86.3	86.3	87.0	88.4	89.0	88.4	88.4
65°	67.5	68.2	68.2	69.0	70.3	70.3	69.5	70.3
67.5°	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5
70°	31.3	30.6	29.9	30.6	30.6	30.6	29.9	31.3
72.5°	15.3	16.0	16.0	16.0	16.0	16.0	16.0	15.3
75°	6.9	6.9	6.2	6.2	6.2	6.9	6.9	6.2
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)