

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: P583677

Luminaire Tested: **HC807D010-HM80520935-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583677
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: HC807D010-HM80520935-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 841.6 lumens
Efficiency: N/A
Efficacy: 105.2 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

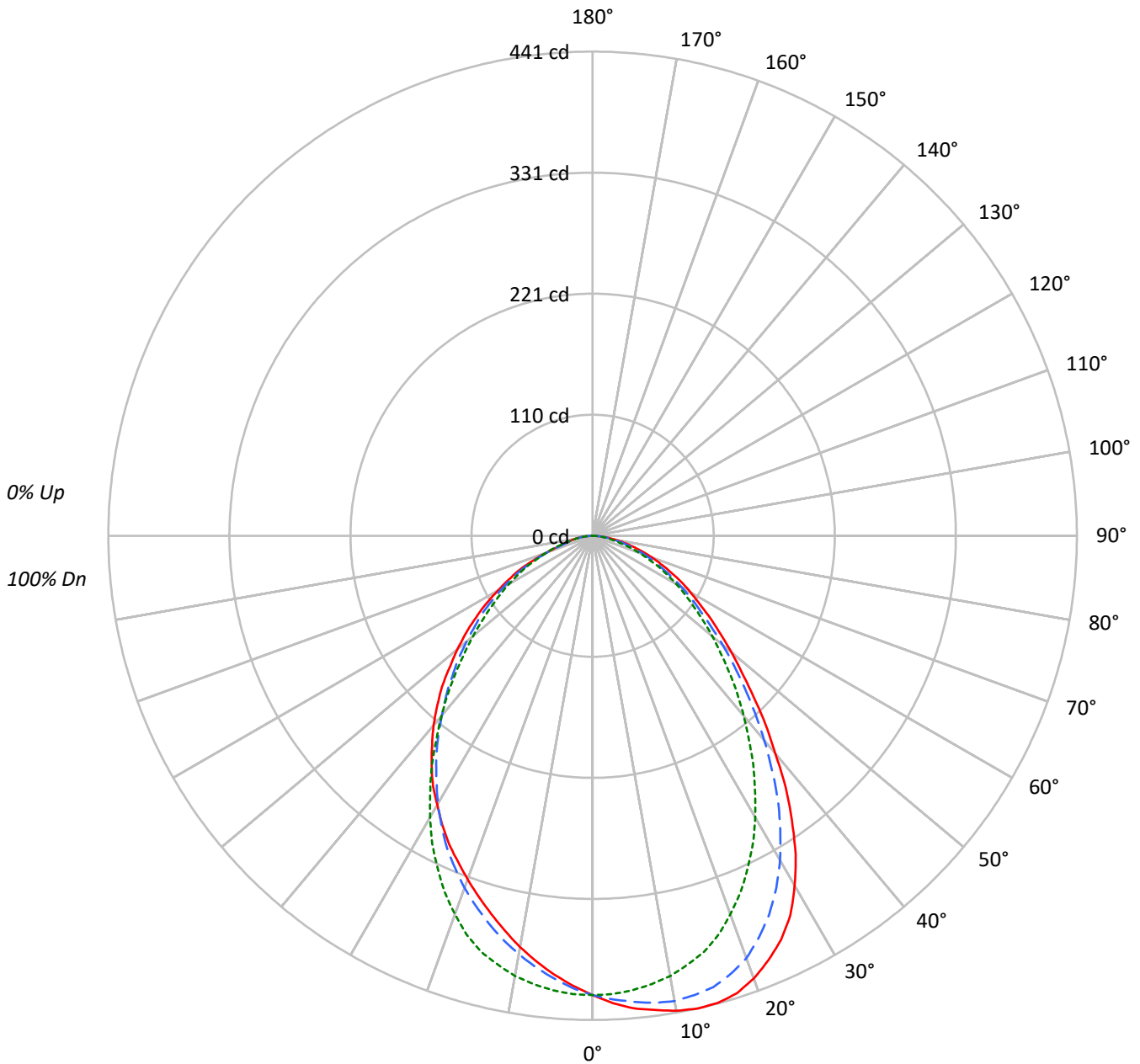
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50					50			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12902	12902	12902
5°	13375	12861	12419
10°	13755	12747	11911
15°	14059	12524	11384
20°	14081	12033	10921
25°	13810	11364	10534
30°	13100	10540	10073
35°	11903	9599	9622
40°	10410	8614	9069
45°	9023	7671	8447
50°	7901	6817	7700
55°	7027	6037	6962
60°	6340	5427	6124
65°	5728	4772	5334
70°	5139	4021	3967
75°	4527	3193	2979
80°	3800	2628	2841
85°	2972	2335	2547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.5	4.7
10°-20°	111.2	13.2
20°-30°	158.9	18.9
30°-40°	168.8	20.1
40°-50°	145.4	17.3
50°-60°	108.7	12.9
60°-70°	69.3	8.2
70°-80°	31.6	3.7
80°-90°	8.3	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°	309.5	36.8
0°-40°	478.4	56.8
0°-60°	732.4	87.0
0°-90°	841.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	841.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	418	418	418	418	418	
5°	432	426	416	405	401	41
15°	440	426	392	366	357	124
25°	406	380	334	314	310	186
35°	316	294	255	248	256	197
45°	207	196	176	181	194	161
55°	131	120	112	122	130	118
65°	78	70	65	68	73	78
75°	38	33	27	24	25	40
85°	8	7	7	7	7	10
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°	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4
2.5°	426.1	424.9	425.5	424.9	425.5	425.5	424.3	424.3	424.3	424.3	422.6
5°	432.1	431.5	431.5	430.9	430.3	430.9	430.3	429.7	428.5	427.9	426.1
7.5°	435.7	435.7	435.7	435.7	435.1	434.5	433.9	432.7	431.5	430.3	429.1
10°	439.3	439.8	439.3	438.7	438.1	436.9	436.3	435.1	433.3	431.5	430.3
12.5°	441.0	441.0	440.4	440.4	439.3	438.7	436.9	435.1	433.3	431.5	428.5
15°	440.4	440.4	439.8	439.3	437.5	436.9	435.7	433.9	430.9	428.5	425.5
17.5°	436.9	436.3	435.1	435.1	432.7	432.1	430.9	428.5	425.5	422.0	418.4
20°	429.1	429.1	428.5	427.9	425.5	423.7	422.6	419.6	417.3	413.1	409.5
22.5°	418.4	419.6	418.4	417.3	414.3	413.7	411.9	408.3	404.7	400.0	395.8
25°	405.9	405.3	404.7	403.6	401.2	400.0	397.6	394.1	390.5	385.1	380.4
27.5°	389.9	387.5	387.5	385.1	383.4	381.6	380.4	376.8	372.1	367.9	362.0
30°	367.9	368.5	365.6	365.0	362.0	360.8	358.4	354.8	350.6	346.0	341.2
32.5°	344.2	342.4	342.4	340.0	337.6	335.8	335.2	331.0	327.4	322.8	318.0
35°	316.2	316.2	314.4	313.8	311.4	310.2	308.4	306.0	302.0	297.8	294.2
37.5°	288.8	287.6	287.0	285.8	284.1	282.3	282.3	278.2	277.6	272.8	268.0
40°	258.6	259.7	258.6	256.8	256.2	255.0	254.4	252.0	250.2	246.1	243.1
42.5°	233.0	231.8	231.8	231.2	228.8	228.8	227.6	226.5	223.5	222.3	218.7
45°	206.9	208.0	206.3	206.9	204.5	204.5	204.5	202.1	199.7	197.9	195.5
47.5°	184.3	184.9	184.9	183.1	182.5	182.5	181.3	180.1	178.3	175.9	174.1
50°	164.7	165.3	164.1	163.5	162.3	161.7	161.7	159.3	158.1	155.7	154.5
52.5°	146.7	146.7	146.3	146.3	144.5	144.5	143.3	141.5	140.3	139.1	136.1
55°	130.7	130.7	130.1	129.5	129.5	127.7	127.1	125.4	124.2	121.9	120.1
57.5°	115.3	115.9	115.3	114.7	114.1	113.5	112.3	110.5	109.3	107.6	106.4
60°	102.8	102.8	102.2	101.6	100.5	99.9	99.3	98.1	96.3	95.1	93.3
62.5°	90.9	90.3	89.7	89.1	88.0	88.0	86.8	85.6	83.8	82.6	81.4
65°	78.5	78.5	77.9	77.9	77.3	76.1	75.5	74.9	72.5	71.9	69.5
67.5°	67.2	67.8	66.6	66.6	65.4	65.4	64.8	63.0	62.4	61.2	60.0
70°	57.0	57.0	57.0	56.4	55.3	54.7	54.1	52.9	52.3	51.1	50.0
72.5°	47.0	47.0	46.4	46.4	45.8	45.2	44.6	43.4	43.4	42.2	41.0
75°	38.0	38.0	37.4	36.8	36.2	36.2	35.6	35.0	33.8	33.3	32.7
77.5°	29.2	29.2	29.2	28.6	28.0	28.0	28.0	26.8	25.6	25.6	25.0
80°	21.4	21.4	20.8	20.8	20.2	20.2	20.2	19.6	19.0	18.4	17.8
82.5°	14.2	14.2	14.2	14.2	13.6	13.6	13.6	13.0	12.4	12.4	12.4
85°	8.4	8.4	8.4	8.4	7.8	7.8	7.8	7.8	7.8	7.2	7.2
87.5°	3.6	3.0	3.6	3.0	3.6	3.0	3.6	3.0	3.0	3.0	3.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4
2.5°	423.1	422.6	422.0	421.4	421.4	420.8	419.6	419.0	418.4	417.8	417.8
5°	425.5	424.9	423.7	422.6	422.0	420.8	419.6	418.4	417.3	415.5	414.9
7.5°	427.3	425.5	424.3	422.0	421.4	420.2	418.4	416.7	414.3	411.9	410.1
10°	427.3	424.9	423.1	420.2	419.0	417.8	415.5	412.5	409.5	407.1	404.1
12.5°	426.1	423.1	420.2	417.3	415.5	413.7	410.1	407.1	403.6	400.0	397.6
15°	422.0	418.4	414.9	411.3	409.5	407.1	403.6	399.4	395.8	392.3	388.1
17.5°	414.3	410.7	406.5	402.4	400.0	398.2	392.9	389.9	384.6	381.0	377.4
20°	404.1	400.0	394.7	390.5	387.5	385.7	381.6	376.2	372.1	366.7	363.2
22.5°	391.1	385.7	380.4	376.2	373.2	370.9	365.6	360.2	356.6	351.8	347.7
25°	375.6	370.3	365.0	359.0	356.0	353.6	348.9	344.2	339.4	334.0	330.4
27.5°	357.2	351.2	346.6	341.2	338.2	334.6	329.2	324.6	319.8	316.2	311.4
30°	337.0	330.4	325.8	320.4	317.4	314.4	309.0	304.4	300.2	296.0	293.6
32.5°	312.6	307.8	303.2	297.8	295.4	293.6	288.2	283.5	278.8	275.2	273.4
35°	289.4	284.1	280.0	275.2	272.2	270.4	265.6	261.5	259.2	255.0	252.6
37.5°	265.1	260.9	256.2	251.4	249.6	247.8	244.3	240.1	236.6	233.6	232.4
40°	239.5	236.0	231.8	228.8	227.0	225.3	222.3	219.3	216.9	214.0	212.8
42.5°	215.1	212.8	209.2	205.7	203.9	203.3	199.7	197.3	196.1	194.9	193.7
45°	193.1	189.6	187.3	184.9	183.1	181.9	180.1	178.3	177.1	175.9	174.7
47.5°	171.7	168.9	166.5	164.7	162.9	162.3	161.1	159.3	158.1	158.1	158.1
50°	152.1	149.7	147.3	146.3	145.7	144.5	143.3	142.7	142.1	142.1	142.1
52.5°	134.9	132.5	130.7	129.5	129.5	128.3	127.1	126.6	126.6	126.6	126.6
55°	118.9	117.1	115.9	114.7	113.5	112.9	112.9	112.9	112.3	112.3	112.9
57.5°	104.6	103.4	101.6	100.5	99.9	99.9	99.3	98.7	99.3	99.9	100.5
60°	91.5	90.3	89.7	88.0	88.0	88.0	87.4	87.4	87.4	88.0	88.5
62.5°	79.6	79.0	77.9	77.3	76.7	76.7	76.1	76.1	76.1	76.1	76.7
65°	69.0	67.8	66.6	66.6	66.6	66.0	66.0	64.8	65.4	65.4	64.8
67.5°	58.8	57.6	57.0	56.4	55.9	55.9	55.3	54.7	54.1	54.1	54.1
70°	49.4	48.2	48.2	47.0	47.0	46.4	45.8	45.8	45.2	44.6	44.0
72.5°	39.8	39.2	38.6	38.0	38.0	38.0	37.4	36.8	36.2	35.6	34.4
75°	31.5	31.5	30.4	29.8	29.8	29.2	28.6	28.0	27.4	26.8	26.2
77.5°	24.4	23.8	22.6	22.0	22.0	22.0	21.4	20.8	20.2	19.6	19.0
80°	17.8	17.2	16.6	16.0	16.0	16.0	15.4	15.4	14.8	14.8	14.8
82.5°	11.8	11.8	11.2	11.2	11.2	11.2	10.8	10.8	10.8	10.8	10.8
85°	7.2	7.2	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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°	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4
2.5°	416.7	416.7	415.5	414.9	414.3	414.9	413.7	413.1	412.5	412.5	411.9
5°	413.1	412.5	410.1	409.5	408.9	408.3	407.1	405.9	404.7	404.1	403.6
7.5°	408.3	406.5	404.1	403.6	403.0	401.2	399.4	398.2	396.4	395.8	394.7
10°	401.8	399.4	397.6	395.8	394.7	392.9	391.1	389.3	386.9	386.3	384.6
12.5°	394.1	391.1	387.5	386.9	385.1	382.8	380.4	378.6	376.8	375.6	373.8
15°	384.6	381.6	378.0	376.2	374.4	372.6	369.7	367.3	365.6	363.8	362.0
17.5°	373.2	369.7	366.7	365.0	363.8	360.8	358.4	355.4	353.6	351.8	350.0
20°	359.6	356.6	352.4	350.6	350.0	347.7	344.8	343.6	341.2	339.4	338.2
22.5°	344.2	341.2	337.6	336.4	334.0	332.8	329.8	328.6	327.4	325.8	325.2
25°	327.0	324.0	321.0	320.4	318.6	317.4	315.6	313.8	313.8	312.0	312.0
27.5°	309.0	306.0	303.8	302.6	302.0	300.8	299.0	298.4	297.8	297.2	297.2
30°	290.0	286.4	285.2	284.6	284.1	282.9	282.3	281.2	281.8	282.3	281.8
32.5°	269.8	268.6	266.2	265.1	265.6	265.1	263.9	265.1	264.5	265.6	266.2
35°	250.2	249.0	247.8	247.8	246.6	246.6	246.6	247.2	248.4	249.0	250.2
37.5°	231.2	229.4	228.8	228.2	228.8	228.8	228.8	230.0	231.2	232.4	234.2
40°	211.0	209.8	209.8	209.8	209.8	211.6	211.0	212.2	213.4	215.1	216.9
42.5°	191.9	191.9	192.5	192.5	192.5	192.5	193.7	195.5	197.3	199.1	200.9
45°	174.1	174.1	174.1	175.3	175.3	175.9	178.3	179.5	180.7	182.5	184.3
47.5°	157.5	157.5	158.1	158.7	159.3	160.5	161.7	163.5	165.3	166.5	168.3
50°	142.1	142.7	143.9	145.1	145.1	145.7	147.3	148.5	149.7	151.5	152.1
52.5°	127.1	128.3	129.5	130.1	130.7	131.9	132.5	134.3	134.9	136.7	137.3
55°	113.5	114.1	115.9	116.5	116.5	117.7	118.9	120.1	121.9	121.9	123.1
57.5°	101.1	101.6	102.8	103.4	102.8	104.6	105.2	106.4	107.0	108.1	108.7
60°	88.5	89.7	90.3	90.3	90.9	91.5	92.7	92.7	93.9	95.1	95.1
62.5°	76.7	77.3	77.9	78.5	79.0	78.5	80.2	80.2	81.4	82.0	83.2
65°	65.4	66.0	66.0	66.6	66.6	67.2	67.2	67.8	68.4	69.5	70.1
67.5°	54.1	54.1	54.1	54.7	54.1	54.7	54.7	55.3	55.3	56.4	57.0
70°	44.0	43.4	42.8	42.8	42.8	42.8	42.2	42.8	42.8	43.4	43.4
72.5°	33.8	33.3	32.7	32.1	32.1	31.5	31.0	31.5	31.5	32.1	32.1
75°	25.6	24.4	24.4	24.4	23.8	23.8	23.8	24.4	24.4	24.4	25.0
77.5°	19.0	19.0	18.4	18.4	18.4	19.0	19.0	19.6	19.6	19.6	19.6
80°	14.2	14.8	14.8	14.8	14.8	15.4	15.4	15.4	15.4	16.0	16.0
82.5°	10.8	10.8	10.8	10.8	11.2	11.2	11.2	11.2	11.2	11.2	11.2
85°	6.6	7.2	7.2	6.6	7.2	7.2	7.2	7.2	7.2	7.2	7.2
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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: P583677

CATALOG NUMBER: HC807D010-HM80520935-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	418.4	418.4	418.4	418.4	418.4	418.4	418.4	418.4
2.5°	411.3	411.3	411.3	411.3	410.7	410.7	410.7	410.1
5°	402.4	402.4	402.4	401.2	401.8	401.8	400.6	401.2
7.5°	393.5	392.9	392.3	392.3	391.7	391.1	390.5	391.1
10°	383.4	381.6	381.6	381.0	381.0	379.8	379.8	380.4
12.5°	372.1	370.9	370.9	370.3	369.7	369.1	368.5	368.5
15°	360.8	359.6	359.0	358.4	357.8	356.6	357.2	356.6
17.5°	349.5	347.7	347.7	347.1	346.6	345.4	345.4	344.8
20°	336.4	335.8	334.6	335.2	334.6	333.4	332.8	332.8
22.5°	323.4	323.4	322.8	322.8	322.2	321.6	321.0	321.0
25°	310.8	310.2	310.8	310.8	309.0	309.0	309.0	309.6
27.5°	296.6	297.2	296.6	296.6	296.6	296.6	297.2	296.6
30°	282.3	282.3	282.3	282.9	284.1	283.5	283.5	282.9
32.5°	266.8	267.4	267.4	268.0	268.6	269.8	269.8	270.4
35°	251.4	252.6	253.2	252.6	254.4	254.4	255.6	255.6
37.5°	235.4	236.0	237.1	237.7	238.9	239.5	240.1	240.1
40°	218.1	220.5	221.1	221.7	223.5	223.5	224.1	225.3
42.5°	202.1	204.5	205.1	205.7	206.9	208.6	208.0	209.2
45°	186.7	188.5	189.0	189.6	191.4	191.9	191.9	193.7
47.5°	169.9	171.1	171.7	172.9	174.1	175.3	176.5	175.9
50°	153.3	155.1	156.3	156.9	158.7	159.3	159.9	160.5
52.5°	138.5	139.7	140.3	140.9	142.7	143.3	143.9	145.1
55°	124.2	124.8	126.0	125.4	127.1	127.7	128.3	129.5
57.5°	109.9	110.5	111.1	111.1	112.3	113.5	114.1	114.7
60°	96.3	97.5	98.1	98.1	98.1	99.3	99.3	99.3
62.5°	83.8	83.8	84.4	84.4	85.6	85.6	85.6	85.6
65°	70.7	71.3	71.9	71.9	73.1	72.5	73.7	73.1
67.5°	57.0	57.0	58.2	58.2	57.6	58.2	58.2	58.2
70°	43.4	43.4	44.0	44.0	44.0	44.0	44.0	44.0
72.5°	32.1	32.1	32.1	32.7	32.1	32.1	32.7	32.1
75°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
77.5°	19.6	19.6	20.2	20.2	20.2	20.2	20.2	20.2
80°	16.0	16.0	16.0	16.0	16.6	16.0	16.0	16.0
82.5°	11.8	11.2	11.8	11.2	11.8	11.8	11.8	11.8
85°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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)