

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: P583575

Luminaire Tested: **HC807D010-HM80520827-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583575
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-HM80520827-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

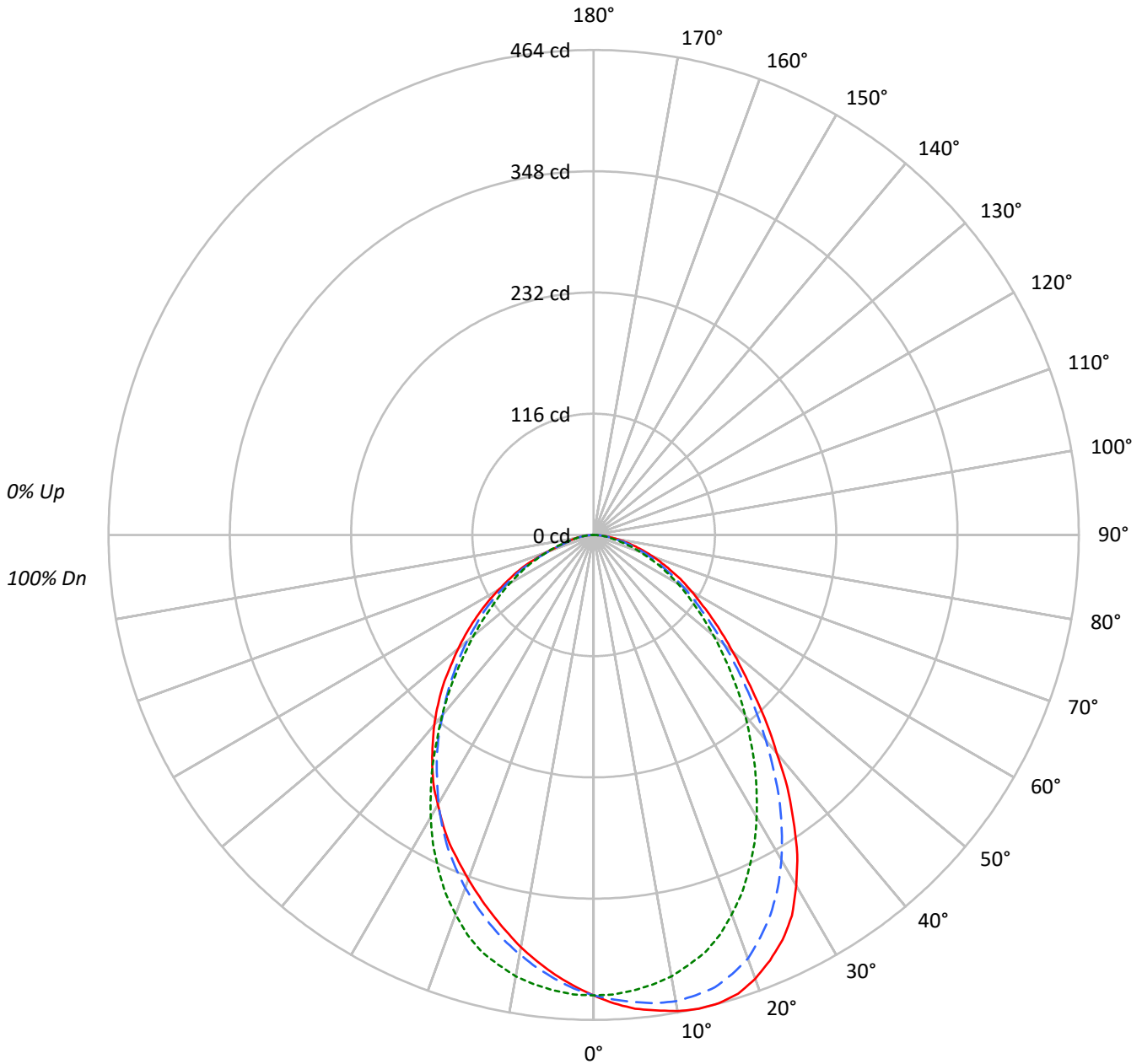
Lumens per Lamp: N/A
Luminaire Lumens: 886.2 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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									
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	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°	13586	13586	13586
5°	14087	13542	13075
10°	14485	13427	12544
15°	14806	13188	11991
20°	14829	12673	11502
25°	14545	11970	11095
30°	13794	11099	10607
35°	12532	10107	10130
40°	10957	9073	9548
45°	9498	8076	8896
50°	8318	7177	8107
55°	7403	6360	7338
60°	6679	5711	6451
65°	6027	5020	5618
70°	5419	4237	4183
75°	4766	3360	3133
80°	4013	2788	2983
85°	3078	2441	2654



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	4.7
10°-20°	117.1	13.2
20°-30°	167.3	18.9
30°-40°	177.8	20.1
40°-50°	153.1	17.3
50°-60°	114.5	12.9
60°-70°	73.0	8.2
70°-80°	33.2	3.7
80°-90°	8.7	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°	326.0	36.8
0°-40°	503.8	56.8
0°-60°	771.3	87.0
0°-90°	886.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	886.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	441	441	441	441	441	
5°	455	449	438	426	422	44
15°	464	448	413	385	376	131
25°	428	401	352	330	326	196
35°	333	310	268	262	269	207
45°	218	206	185	190	204	169
55°	138	126	118	128	136	124
65°	83	73	69	72	77	82
75°	40	34	28	26	26	43
85°	9	8	7	8	8	11
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°	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6
2.5°	448.7	447.5	448.1	447.5	448.1	448.1	446.9	446.9	446.9	446.9	445.0
5°	455.1	454.5	454.5	453.7	453.1	453.7	453.1	452.5	451.2	450.6	448.7
7.5°	458.8	458.8	458.8	458.8	458.2	457.6	456.8	455.7	454.5	453.1	451.9
10°	462.6	463.2	462.6	461.9	461.3	460.1	459.4	458.2	456.3	454.5	453.1
12.5°	464.4	464.4	463.8	463.8	462.6	461.9	460.1	458.2	456.3	454.5	451.2
15°	463.8	463.8	463.2	462.6	460.7	460.1	458.8	456.8	453.7	451.2	448.1
17.5°	460.1	459.4	458.2	458.2	455.7	455.1	453.7	451.2	448.1	444.4	440.6
20°	451.9	451.9	451.2	450.6	448.1	446.2	445.0	441.9	439.4	435.0	431.3
22.5°	440.6	441.9	440.6	439.4	436.3	435.6	433.8	430.0	426.3	421.2	416.8
25°	427.5	426.9	426.3	424.9	422.4	421.2	418.7	415.0	411.2	405.6	400.6
27.5°	410.6	408.1	408.1	405.6	403.7	401.9	400.6	396.9	391.8	387.4	381.2
30°	387.4	388.0	384.9	384.3	381.2	379.9	377.4	373.7	369.3	364.2	359.2
32.5°	362.4	360.5	360.5	358.0	355.5	353.6	353.0	348.6	344.9	339.9	334.8
35°	332.9	332.9	331.1	330.4	328.0	326.7	324.8	322.3	318.0	313.6	309.9
37.5°	304.2	302.9	302.3	301.0	299.2	297.3	297.3	292.9	292.3	287.3	282.3
40°	272.2	273.5	272.2	270.4	269.7	268.5	267.9	265.4	263.5	259.1	256.0
42.5°	245.3	244.1	244.1	243.4	240.9	240.9	239.7	238.5	235.3	234.1	230.3
45°	217.8	219.0	217.1	217.8	215.3	215.3	215.3	212.8	210.3	208.4	205.9
47.5°	194.1	194.7	194.7	192.8	192.2	192.2	190.8	189.6	187.7	185.2	183.4
50°	173.4	174.0	172.8	172.1	170.9	170.3	170.3	167.8	166.5	164.0	162.8
52.5°	154.6	154.6	153.9	153.9	152.1	152.1	150.8	149.0	147.7	146.5	143.3
55°	137.7	137.7	137.1	136.5	136.5	134.6	134.0	132.0	130.9	128.3	126.4
57.5°	121.4	122.0	121.4	120.8	120.2	119.5	118.3	116.4	115.2	113.3	112.1
60°	108.3	108.3	107.7	107.1	105.8	105.2	104.6	103.2	101.5	100.1	98.2
62.5°	95.7	95.1	94.5	93.9	92.6	92.6	91.4	90.1	88.3	87.0	85.8
65°	82.6	82.6	82.0	82.0	81.4	80.1	79.5	78.9	76.4	75.8	73.3
67.5°	70.7	71.3	70.1	70.1	68.8	68.8	68.2	66.3	65.7	64.4	63.2
70°	60.1	60.1	60.1	59.5	58.2	57.6	57.0	55.7	55.1	53.8	52.6
72.5°	49.5	49.5	48.9	48.9	48.2	47.6	47.0	45.6	45.6	44.5	43.1
75°	40.0	40.0	39.4	38.8	38.1	38.1	37.5	36.9	35.7	35.0	34.4
77.5°	30.7	30.7	30.7	30.0	29.4	29.4	29.4	28.2	26.9	26.9	26.3
80°	22.6	22.6	21.9	21.9	21.3	21.3	21.3	20.7	20.1	19.4	18.8
82.5°	15.1	15.1	15.1	15.1	14.3	14.3	14.3	13.7	13.1	13.1	13.1
85°	8.7	8.7	8.7	8.7	8.1	8.1	8.1	8.1	8.1	7.5	7.5
87.5°	3.7	3.1	3.7	3.1	3.7	3.1	3.7	3.1	3.1	3.1	3.1
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°	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6
2.5°	445.6	445.0	444.4	443.8	443.8	443.1	441.9	441.3	440.6	440.0	440.0
5°	448.1	447.5	446.2	445.0	444.4	443.1	441.9	440.6	439.4	437.5	436.9
7.5°	450.0	448.1	446.9	444.4	443.8	442.5	440.6	438.8	436.3	433.8	431.9
10°	450.0	447.5	445.6	442.5	441.3	440.0	437.5	434.4	431.3	428.8	425.7
12.5°	448.7	445.6	442.5	439.4	437.5	435.6	431.9	428.8	424.9	421.2	418.7
15°	444.4	440.6	436.9	433.1	431.3	428.8	424.9	420.6	416.8	413.1	408.7
17.5°	436.3	432.5	428.2	423.7	421.2	419.3	413.7	410.6	405.0	401.2	397.5
20°	425.7	421.2	415.6	411.2	408.1	406.2	401.9	396.1	391.8	386.2	382.4
22.5°	411.8	406.2	400.6	396.1	393.0	390.5	384.9	379.3	375.6	370.6	366.1
25°	395.5	389.9	384.3	378.1	374.9	372.4	367.5	362.4	357.4	351.8	348.0
27.5°	376.2	369.9	365.0	359.2	356.1	352.4	346.8	341.8	336.8	332.9	328.0
30°	354.9	348.0	343.0	337.3	334.2	331.1	325.5	320.5	316.1	311.7	309.1
32.5°	329.2	324.2	319.2	313.6	311.1	309.1	303.5	298.5	293.5	289.8	287.9
35°	304.8	299.2	294.8	289.8	286.7	284.8	279.7	275.4	272.9	268.5	266.0
37.5°	279.2	274.7	269.7	264.8	262.9	261.0	257.3	252.9	249.2	245.9	244.7
40°	252.3	248.4	244.1	240.9	239.1	237.2	234.1	231.0	228.5	225.4	224.1
42.5°	226.6	224.1	220.4	216.5	214.7	214.0	210.3	207.8	206.5	205.3	204.0
45°	203.4	199.7	197.2	194.7	192.8	191.6	189.6	187.7	186.5	185.2	184.0
47.5°	180.9	177.7	175.3	173.4	171.5	170.9	169.6	167.8	166.5	166.5	166.5
50°	160.2	157.7	155.2	153.9	153.3	152.1	150.8	150.2	149.6	149.6	149.6
52.5°	142.1	139.6	137.7	136.5	136.5	135.2	134.0	133.4	133.4	133.4	133.4
55°	125.2	123.3	122.0	120.8	119.5	118.9	118.9	118.9	118.3	118.3	118.9
57.5°	110.2	108.9	107.1	105.8	105.2	105.2	104.6	103.8	104.6	105.2	105.8
60°	96.4	95.1	94.5	92.6	92.6	92.6	92.0	92.0	92.0	92.6	93.2
62.5°	83.9	83.3	82.0	81.4	80.8	80.8	80.1	80.1	80.1	80.1	80.8
65°	72.7	71.3	70.1	70.1	70.1	69.4	69.4	68.2	68.8	68.8	68.2
67.5°	62.0	60.7	60.1	59.5	58.8	58.8	58.2	57.6	57.0	57.0	57.0
70°	52.0	50.7	50.7	49.5	49.5	48.9	48.2	48.2	47.6	47.0	46.4
72.5°	41.9	41.3	40.6	40.0	40.0	40.0	39.4	38.8	38.1	37.5	36.3
75°	33.2	33.2	31.9	31.3	31.3	30.7	30.0	29.4	28.8	28.2	27.5
77.5°	25.7	25.1	23.8	23.2	23.2	23.2	22.6	21.9	21.3	20.7	20.1
80°	18.8	18.2	17.6	16.8	16.8	16.8	16.3	16.3	15.7	15.7	15.7
82.5°	12.5	12.5	12.0	12.0	12.0	12.0	11.2	11.2	11.2	11.2	11.2
85°	7.5	7.5	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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°	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6
2.5°	438.8	438.8	437.5	436.9	436.3	436.9	435.6	435.0	434.4	434.4	433.8
5°	435.0	434.4	431.9	431.3	430.7	430.0	428.8	427.5	426.3	425.7	424.9
7.5°	430.0	428.2	425.7	424.9	424.3	422.4	420.6	419.3	417.5	416.8	415.6
10°	423.1	420.6	418.7	416.8	415.6	413.7	411.8	410.0	407.5	406.8	405.0
12.5°	415.0	411.8	408.1	407.5	405.6	403.1	400.6	398.7	396.9	395.5	393.6
15°	405.0	401.9	398.1	396.1	394.4	392.4	389.3	386.8	384.9	383.0	381.2
17.5°	393.0	389.3	386.2	384.3	383.0	379.9	377.4	374.3	372.4	370.6	368.7
20°	378.7	375.6	371.2	369.3	368.7	366.1	363.0	361.7	359.2	357.4	356.1
22.5°	362.4	359.2	355.5	354.3	351.8	350.5	347.4	346.1	344.9	343.0	342.4
25°	344.3	341.2	337.9	337.3	335.4	334.2	332.3	330.4	330.4	328.6	328.6
27.5°	325.5	322.3	319.8	318.6	318.0	316.7	314.9	314.2	313.6	313.0	313.0
30°	305.4	301.7	300.4	299.8	299.2	297.9	297.3	296.0	296.7	297.3	296.7
32.5°	284.2	282.9	280.3	279.2	279.7	279.2	278.0	279.2	278.6	279.7	280.3
35°	263.5	262.3	261.0	261.0	259.8	259.8	259.8	260.4	261.6	262.3	263.5
37.5°	243.4	241.6	240.9	240.3	240.9	240.9	240.9	242.2	243.4	244.7	246.6
40°	222.2	221.0	221.0	221.0	221.0	222.9	222.2	223.5	224.7	226.6	228.5
42.5°	202.2	202.2	202.8	202.8	202.8	202.8	204.0	205.9	207.8	209.7	211.5
45°	183.4	183.4	183.4	184.6	184.6	185.2	187.7	189.0	190.2	192.2	194.1
47.5°	165.9	165.9	166.5	167.1	167.8	169.0	170.3	172.1	174.0	175.3	177.1
50°	149.6	150.2	151.5	152.7	152.7	153.3	155.2	156.4	157.7	159.7	160.2
52.5°	134.0	135.2	136.5	137.1	137.7	139.0	139.6	141.5	142.1	144.0	144.6
55°	119.5	120.2	122.0	122.7	122.7	123.9	125.2	126.4	128.3	128.3	129.5
57.5°	106.4	107.1	108.3	108.9	108.3	110.2	110.8	112.1	112.7	113.9	114.5
60°	93.2	94.5	95.1	95.1	95.7	96.4	97.6	97.6	98.9	100.1	100.1
62.5°	80.8	81.4	82.0	82.6	83.3	82.6	84.5	84.5	85.8	86.4	87.6
65°	68.8	69.4	69.4	70.1	70.1	70.7	70.7	71.3	71.9	73.3	73.9
67.5°	57.0	57.0	57.0	57.6	57.0	57.6	57.6	58.2	58.2	59.5	60.1
70°	46.4	45.6	45.1	45.1	45.1	45.1	44.5	45.1	45.1	45.6	45.6
72.5°	35.7	35.0	34.4	33.8	33.8	33.2	32.5	33.2	33.2	33.8	33.8
75°	26.9	25.7	25.7	25.7	25.1	25.1	25.1	25.7	25.7	25.7	26.3
77.5°	20.1	20.1	19.4	19.4	19.4	20.1	20.1	20.7	20.7	20.7	20.7
80°	15.1	15.7	15.7	15.7	15.7	16.3	16.3	16.3	16.3	16.8	16.8
82.5°	11.2	11.2	11.2	11.2	12.0	12.0	12.0	12.0	12.0	12.0	12.0
85°	6.9	7.5	7.5	6.9	7.5	7.5	7.5	7.5	7.5	7.5	7.5
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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: P583575

CATALOG NUMBER: HC807D010-HM80520827-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6
2.5°	433.1	433.1	433.1	433.1	432.5	432.5	432.5	431.9
5°	423.7	423.7	423.7	422.4	423.1	423.1	421.8	422.4
7.5°	414.3	413.7	413.1	413.1	412.5	411.8	411.2	411.8
10°	403.7	401.9	401.9	401.2	401.2	400.0	400.0	400.6
12.5°	391.8	390.5	390.5	389.9	389.3	388.7	388.0	388.0
15°	379.9	378.7	378.1	377.4	376.8	375.6	376.2	375.6
17.5°	368.1	366.1	366.1	365.6	365.0	363.6	363.6	363.0
20°	354.3	353.6	352.4	353.0	352.4	351.1	350.5	350.5
22.5°	340.5	340.5	339.9	339.9	339.3	338.7	337.9	337.9
25°	327.3	326.7	327.3	327.3	325.5	325.5	325.5	326.1
27.5°	312.4	313.0	312.4	312.4	312.4	312.4	313.0	312.4
30°	297.3	297.3	297.3	297.9	299.2	298.5	298.5	297.9
32.5°	281.1	281.7	281.7	282.3	282.9	284.2	284.2	284.8
35°	264.8	266.0	266.6	266.0	267.9	267.9	269.1	269.1
37.5°	247.8	248.4	249.8	250.4	251.7	252.3	252.9	252.9
40°	229.7	232.2	232.8	233.5	235.3	235.3	236.0	237.2
42.5°	212.8	215.3	215.9	216.5	217.8	219.6	219.0	220.4
45°	196.6	198.4	199.1	199.7	201.6	202.2	202.2	204.0
47.5°	179.0	180.2	180.9	182.1	183.4	184.6	185.9	185.2
50°	161.4	163.4	164.7	165.3	167.1	167.8	168.4	169.0
52.5°	145.8	147.1	147.7	148.3	150.2	150.8	151.5	152.7
55°	130.9	131.5	132.6	132.0	134.0	134.6	135.2	136.5
57.5°	115.8	116.4	117.0	117.0	118.3	119.5	120.2	120.8
60°	101.5	102.7	103.2	103.2	103.2	104.6	104.6	104.6
62.5°	88.3	88.3	88.9	88.9	90.1	90.1	90.1	90.1
65°	74.4	75.2	75.8	75.8	77.0	76.4	77.6	77.0
67.5°	60.1	60.1	61.3	61.3	60.7	61.3	61.3	61.3
70°	45.6	45.6	46.4	46.4	46.4	46.4	46.4	46.4
72.5°	33.8	33.8	33.8	34.4	33.8	33.8	34.4	33.8
75°	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
77.5°	20.7	20.7	21.3	21.3	21.3	21.3	21.3	21.3
80°	16.8	16.8	16.8	16.8	17.6	16.8	16.8	16.8
82.5°	12.5	12.0	12.5	12.0	12.5	12.5	12.5	12.5
85°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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)