

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: P583573

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583573
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520827-81WWBB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 779.8 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.07 / 1.16
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

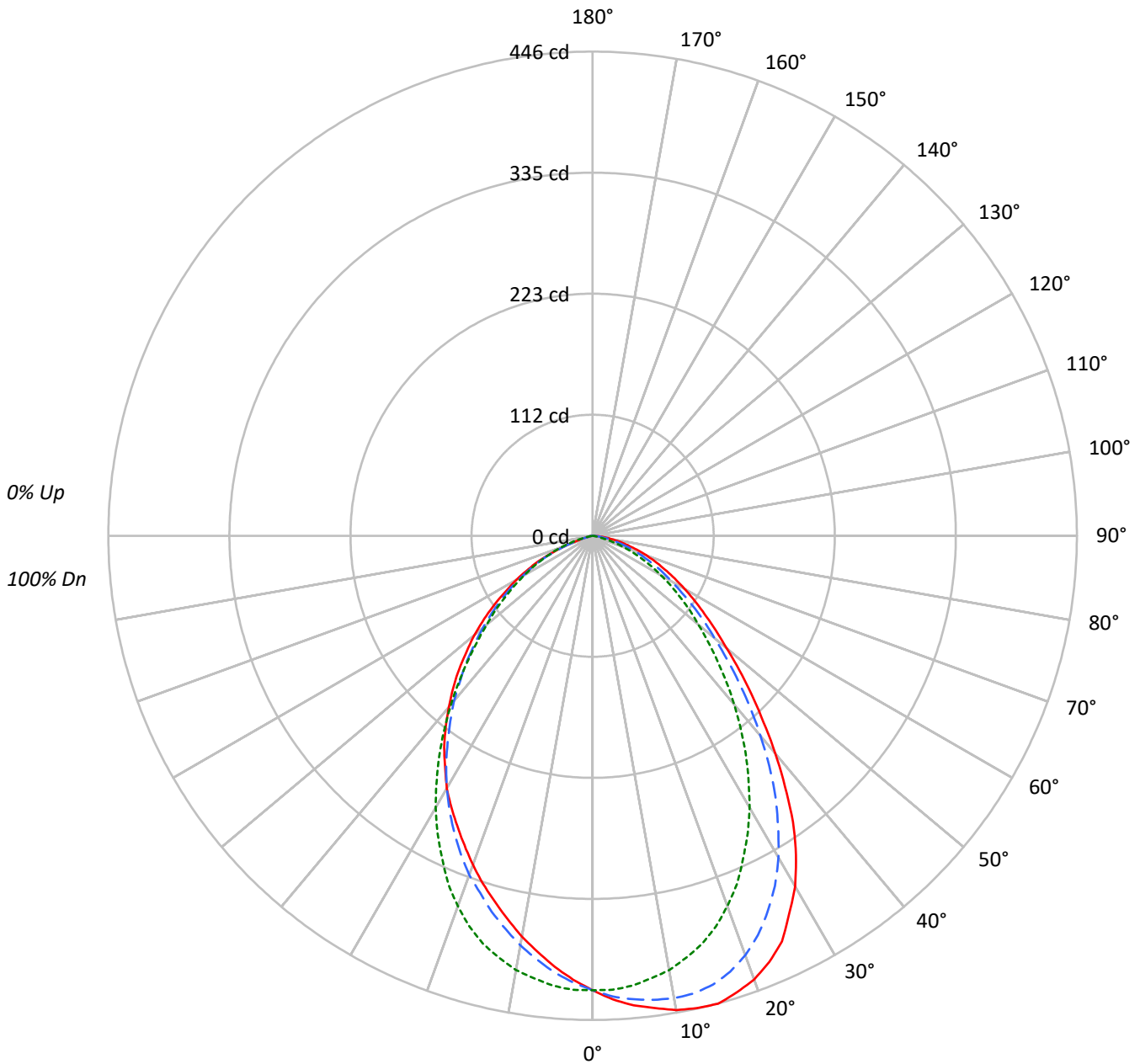
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
5	82	70	63	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	47			47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43			43
8	66	54	46	41	65	53	46	41	52	46	41	51	45	41	50	44	40	39			39
9	62	50	43	37	61	50	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12908	12908	12908
5°	13443	12880	12341
10°	13893	12719	11739
15°	14245	12425	11129
20°	14275	11909	10576
25°	14032	11157	10030
30°	13281	10294	9560
35°	12110	9257	8974
40°	10530	8164	8288
45°	9031	7065	7588
50°	7714	6093	6817
55°	6763	5247	5925
60°	6019	4471	4983
65°	5348	3656	3977
70°	4742	2705	2254
75°	3956	1406	667
80°	3125	444	107
85°	2194	212	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	5.1
10°-20°	110.6	14.2
20°-30°	156.5	20.1
30°-40°	163.7	21.0
40°-50°	136.6	17.5
50°-60°	96.8	12.4
60°-70°	55.8	7.2
70°-80°	17.9	2.3
80°-90°	2.5	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°	306.5	39.3
0°-40°	470.2	60.3
0°-60°	703.6	90.2
0°-90°	779.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	779.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	419	419	419	419	419	
5°	434	429	416	404	399	42
15°	446	428	389	359	349	125
25°	412	382	328	302	295	188
35°	322	294	246	233	238	199
45°	207	190	162	164	174	160
55°	126	113	98	103	110	114
65°	73	61	50	50	54	73
75°	33	24	12	6	6	36
85°	6	3	1	0	0	8
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°	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6
2.5°	427.5	426.7	426.1	426.7	426.1	426.7	426.1	426.1	425.5	424.9	424.9
5°	434.3	433.7	433.7	433.7	433.1	432.5	432.5	431.8	430.6	430.0	428.6
7.5°	438.7	439.3	439.3	439.3	438.1	438.1	436.8	435.6	434.3	433.1	431.2
10°	443.7	443.7	443.1	442.4	441.2	440.6	439.9	438.7	436.8	434.3	432.5
12.5°	445.6	445.6	444.9	443.7	443.1	442.4	441.8	439.9	437.5	434.3	431.8
15°	446.2	444.9	444.3	443.7	442.4	440.6	440.6	438.1	435.0	431.2	428.0
17.5°	441.2	441.8	440.6	439.3	437.5	436.2	434.3	432.5	428.6	424.3	421.1
20°	435.0	434.3	433.7	431.8	429.2	428.6	426.7	423.6	420.5	415.5	411.2
22.5°	424.9	424.3	423.0	421.8	419.3	418.0	416.1	412.4	408.0	403.0	398.1
25°	412.4	411.2	409.3	406.8	404.9	403.7	401.2	397.3	392.3	386.7	381.7
27.5°	392.3	394.2	393.0	389.2	387.4	384.9	384.2	379.2	374.9	369.3	363.6
30°	373.0	373.0	371.0	369.3	366.1	364.2	361.7	357.9	353.6	346.7	342.4
32.5°	348.6	348.0	345.5	344.8	342.4	338.5	337.9	332.9	328.5	323.5	317.9
35°	321.7	320.4	317.9	316.1	314.8	312.9	311.1	306.6	302.2	297.2	293.5
37.5°	291.0	291.0	290.4	287.3	286.0	284.8	282.9	278.4	275.9	271.0	267.2
40°	261.6	261.0	259.1	258.5	257.2	255.4	254.1	251.5	247.8	244.0	240.3
42.5°	232.8	233.4	230.9	231.6	229.1	227.8	227.2	223.5	221.6	217.7	214.6
45°	207.1	206.5	205.3	204.6	203.4	202.1	200.9	199.0	195.9	192.2	190.2
47.5°	183.3	181.5	181.5	180.8	180.2	177.7	177.1	175.2	173.4	169.6	167.1
50°	160.8	160.8	160.8	160.2	158.3	157.7	156.4	154.5	152.7	150.2	146.4
52.5°	142.7	142.7	142.7	142.1	139.6	139.0	138.3	135.8	133.2	131.5	128.9
55°	125.8	126.4	125.8	124.5	122.6	122.6	120.8	119.5	117.0	115.2	112.7
57.5°	111.4	111.4	110.2	109.5	108.3	107.7	106.4	105.2	102.1	100.1	97.0
60°	97.6	97.0	97.0	95.7	94.5	93.2	92.6	90.7	89.5	86.4	83.9
62.5°	85.1	85.1	83.9	83.9	81.4	81.4	80.8	78.9	77.0	73.9	72.5
65°	73.3	73.3	72.5	71.9	70.1	69.4	68.8	66.9	65.1	63.2	61.3
67.5°	62.6	62.6	61.3	60.7	59.4	58.8	57.6	56.3	54.5	52.6	50.7
70°	52.6	52.0	51.3	50.7	49.5	48.8	47.6	46.4	44.5	43.1	41.3
72.5°	42.5	42.5	41.9	40.6	40.0	39.4	38.8	37.5	35.6	33.8	32.5
75°	33.2	33.2	33.2	31.9	30.7	30.0	30.0	28.8	27.5	25.7	24.4
77.5°	25.7	25.0	24.4	24.4	23.2	22.6	21.9	21.3	19.4	18.8	17.6
80°	17.6	18.2	17.6	16.8	16.3	15.7	15.7	14.3	13.7	12.5	11.2
82.5°	11.8	11.2	11.2	10.6	10.6	10.0	10.0	8.7	8.1	7.5	6.9
85°	6.2	6.2	5.6	5.6	5.6	5.0	5.0	4.4	4.4	3.7	3.1
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.2	1.2	1.2
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°	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6
2.5°	424.3	423.0	422.4	422.4	421.8	421.1	420.5	419.9	418.6	418.6	417.4
5°	427.5	426.1	425.5	423.6	422.4	422.4	419.9	419.3	417.4	416.1	414.9
7.5°	430.0	427.5	425.5	423.6	422.4	421.1	418.6	416.1	413.7	411.2	409.9
10°	430.0	427.5	424.3	421.1	419.9	418.6	415.5	411.8	408.7	406.2	403.0
12.5°	428.6	424.9	421.1	418.6	416.1	414.3	410.5	406.8	403.0	398.1	395.5
15°	424.9	419.9	416.1	411.8	409.9	406.8	403.7	398.1	393.6	389.2	386.1
17.5°	417.4	411.2	406.8	402.4	399.2	397.3	392.3	387.4	382.4	377.4	373.6
20°	406.2	400.6	395.5	389.9	387.4	384.9	378.6	373.6	368.5	362.9	359.2
22.5°	392.3	386.7	379.9	375.5	371.8	368.5	362.9	357.3	352.3	347.3	342.4
25°	375.5	369.9	363.6	356.7	354.2	351.1	344.8	339.1	333.5	327.9	323.5
27.5°	357.3	349.8	344.8	337.3	334.8	331.6	324.8	318.6	313.6	309.1	304.1
30°	335.4	329.8	322.9	316.1	313.6	310.3	304.7	299.1	294.1	289.1	284.1
32.5°	311.7	306.0	299.1	294.1	290.4	287.9	282.3	277.2	272.2	267.2	262.8
35°	286.6	280.3	275.3	270.3	267.2	264.1	258.5	254.1	250.4	245.9	241.5
37.5°	261.0	256.6	251.5	245.9	242.8	240.3	235.9	230.9	227.8	224.1	221.0
40°	235.9	230.9	226.6	221.6	219.0	217.1	212.8	209.0	205.9	202.8	200.9
42.5°	210.3	205.9	201.5	198.4	196.5	194.7	191.4	187.1	185.2	182.1	180.2
45°	186.5	182.7	179.6	175.2	174.0	172.7	169.0	165.9	164.0	162.0	160.8
47.5°	164.0	161.4	157.7	155.2	153.3	152.1	149.6	147.1	145.2	143.9	142.7
50°	144.6	141.5	139.0	136.5	135.2	133.2	130.7	129.5	128.3	127.0	127.0
52.5°	126.4	123.3	120.8	118.9	117.7	116.4	114.5	113.9	112.7	112.7	112.0
55°	109.5	107.7	105.2	102.7	102.1	101.3	100.1	98.8	98.2	97.6	98.2
57.5°	95.1	93.2	90.7	88.9	88.2	87.6	87.0	85.7	85.1	85.1	85.1
60°	82.0	80.1	78.3	76.4	76.4	75.0	74.4	73.9	73.3	72.5	72.5
62.5°	70.1	68.2	66.3	65.1	64.4	63.8	62.6	61.9	61.3	61.3	60.7
65°	59.4	57.0	56.3	54.5	53.8	53.2	52.6	51.3	50.7	50.1	49.5
67.5°	48.8	47.6	45.6	44.5	43.9	43.1	42.5	41.3	40.6	40.0	38.8
70°	39.4	38.1	36.9	35.6	35.0	34.4	33.2	31.9	31.3	30.0	28.2
72.5°	30.7	29.4	28.2	26.9	26.3	25.7	24.4	23.2	21.9	20.7	19.4
75°	23.2	21.9	20.1	18.8	18.2	18.2	16.3	15.1	13.7	11.8	10.6
77.5°	16.3	14.3	13.7	12.5	11.8	10.6	9.4	8.1	6.9	6.2	5.0
80°	10.6	9.4	8.1	7.5	6.9	6.2	5.6	4.4	3.1	2.5	1.9
82.5°	6.2	5.6	5.0	4.4	3.7	3.1	2.5	2.5	1.9	1.2	0.6
85°	3.1	2.5	1.9	1.9	1.2	1.2	1.2	0.6	0.6	0.6	0.6
87.5°	1.2	0.6	0.6	0.6	0.6	0.6	0.6	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°	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6
2.5°	416.8	416.1	415.5	414.9	414.9	413.7	413.7	413.0	411.8	411.2	411.2
5°	413.0	411.2	409.9	409.3	408.7	406.8	406.2	404.9	403.7	402.4	401.8
7.5°	407.4	404.3	403.0	402.4	400.6	398.7	397.3	395.5	393.6	391.7	391.1
10°	400.6	397.3	394.2	393.0	391.1	389.9	387.4	384.9	383.0	381.1	379.2
12.5°	391.7	388.0	384.9	383.6	381.7	379.2	375.5	374.3	371.0	369.9	367.3
15°	381.7	377.4	374.3	372.4	370.5	366.7	364.2	361.7	358.6	357.3	354.8
17.5°	369.3	364.2	361.1	359.2	357.9	354.8	351.1	348.0	344.8	343.6	341.7
20°	354.2	351.1	346.7	344.8	343.6	339.9	336.0	334.8	332.3	329.8	327.9
22.5°	337.3	334.1	329.8	327.9	327.3	324.2	321.0	319.2	317.3	315.4	313.6
25°	319.8	316.1	312.3	311.1	309.7	307.2	304.7	303.5	301.6	300.4	299.1
27.5°	301.0	297.2	294.1	292.3	291.0	289.1	287.9	286.6	285.4	284.1	283.5
30°	280.9	277.2	274.7	273.4	272.2	271.6	269.7	269.1	268.5	267.2	267.8
32.5°	261.0	257.9	255.4	253.5	253.5	252.1	251.5	251.5	251.0	251.0	251.0
35°	239.0	237.2	235.3	234.7	234.1	233.4	232.8	233.4	232.8	233.4	234.1
37.5°	219.0	217.1	215.9	215.2	214.6	215.2	214.6	214.6	215.2	216.5	217.1
40°	198.4	197.2	195.9	196.5	195.9	195.9	195.9	197.8	198.4	199.0	199.7
42.5°	179.0	177.7	177.1	177.1	177.7	177.1	178.3	179.0	180.2	182.1	183.3
45°	160.2	159.5	159.5	160.2	159.5	160.8	160.8	162.0	164.0	165.3	166.5
47.5°	142.7	142.7	142.7	143.3	143.3	143.9	145.2	145.8	147.1	148.3	149.6
50°	126.4	127.0	127.6	127.6	127.6	128.9	130.1	130.7	131.5	132.0	134.0
52.5°	112.0	112.7	112.7	113.3	113.9	114.5	115.2	116.4	117.0	118.3	118.9
55°	98.2	98.2	99.5	100.1	100.1	100.1	101.3	101.3	102.7	103.2	104.6
57.5°	85.1	85.7	85.7	86.4	86.4	87.0	87.6	88.2	88.9	89.5	90.1
60°	72.5	72.5	72.5	73.3	73.9	74.4	73.9	75.0	75.0	76.4	77.0
62.5°	60.7	61.3	61.3	61.3	61.3	61.3	61.3	61.9	62.6	63.2	63.8
65°	49.5	49.5	49.5	48.8	49.5	48.8	49.5	50.1	50.1	50.7	51.3
67.5°	38.1	38.1	36.9	36.9	37.5	37.5	37.5	37.5	36.9	38.1	38.1
70°	27.5	26.9	26.3	25.7	25.7	25.0	25.0	24.4	24.4	24.4	24.4
72.5°	18.2	16.8	15.7	15.1	14.3	14.3	13.1	12.5	13.1	13.1	13.1
75°	9.4	8.1	7.5	6.9	6.2	6.2	5.6	5.6	5.6	5.6	5.6
77.5°	3.7	3.1	2.5	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.2	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.0	0.0	0.6	0.0	0.6	0.6	0.6	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



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CATALOG NUMBER: HC807D010-HM80520827-81WWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	418.6	418.6	418.6	418.6	418.6	418.6	418.6	418.6
2.5°	410.5	410.5	409.9	410.5	409.3	409.9	409.3	409.3
5°	401.2	399.8	399.8	399.8	399.2	399.2	398.7	398.7
7.5°	389.9	389.2	388.6	388.0	387.4	386.7	386.7	386.7
10°	378.6	377.4	377.4	376.8	375.5	374.9	374.9	374.9
12.5°	365.4	364.8	364.2	364.2	361.7	362.3	361.7	361.7
15°	353.0	352.3	352.3	350.5	349.2	349.2	349.2	348.6
17.5°	339.9	339.1	338.5	337.3	336.0	336.0	335.4	336.0
20°	326.0	325.4	324.2	324.2	323.5	322.9	321.7	322.3
22.5°	312.3	311.1	310.3	310.3	309.7	309.7	308.5	308.5
25°	297.9	297.2	296.6	297.2	296.0	296.0	294.8	294.8
27.5°	282.9	282.3	282.3	282.3	281.7	282.3	281.7	281.7
30°	267.8	267.8	267.2	267.2	267.8	267.2	267.8	268.5
32.5°	251.5	251.5	252.1	252.1	252.9	252.9	252.9	252.9
35°	234.7	235.9	235.9	236.5	237.2	237.8	237.8	238.4
37.5°	219.0	219.6	220.2	221.0	222.2	222.2	222.2	222.2
40°	202.1	202.8	204.0	203.4	205.9	206.5	205.9	205.9
42.5°	184.6	185.8	186.5	187.7	188.3	189.6	190.2	190.2
45°	168.4	169.0	170.2	171.5	172.1	174.0	174.0	174.0
47.5°	151.4	152.7	153.3	154.5	155.2	157.0	157.7	157.0
50°	135.2	136.5	137.7	137.7	139.6	140.2	141.5	142.1
52.5°	119.5	120.1	121.4	122.0	123.3	124.5	125.1	125.8
55°	104.6	105.2	106.4	106.4	108.3	108.9	110.2	110.2
57.5°	90.7	91.4	92.6	92.0	93.2	94.5	94.5	93.9
60°	77.6	77.6	77.6	78.9	79.5	80.1	80.8	80.8
62.5°	63.8	65.1	65.7	65.7	66.3	66.9	66.9	66.3
65°	51.3	52.6	53.2	53.2	53.8	53.8	53.8	54.5
67.5°	38.8	38.8	38.8	39.4	38.8	38.8	38.8	38.8
70°	24.4	24.4	24.4	24.4	23.8	24.4	24.4	25.0
72.5°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
75°	5.6	5.6	5.6	6.2	5.6	5.6	5.6	5.6
77.5°	2.5	1.9	2.5	2.5	1.9	1.9	1.9	1.9
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.0	0.6	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)