

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: P583838

Luminaire Tested: **HC815D010-HM80520827-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583838
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: HC815D010-HM80520827-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1522.3 lumens
Efficiency: N/A
Efficacy: 108.7 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

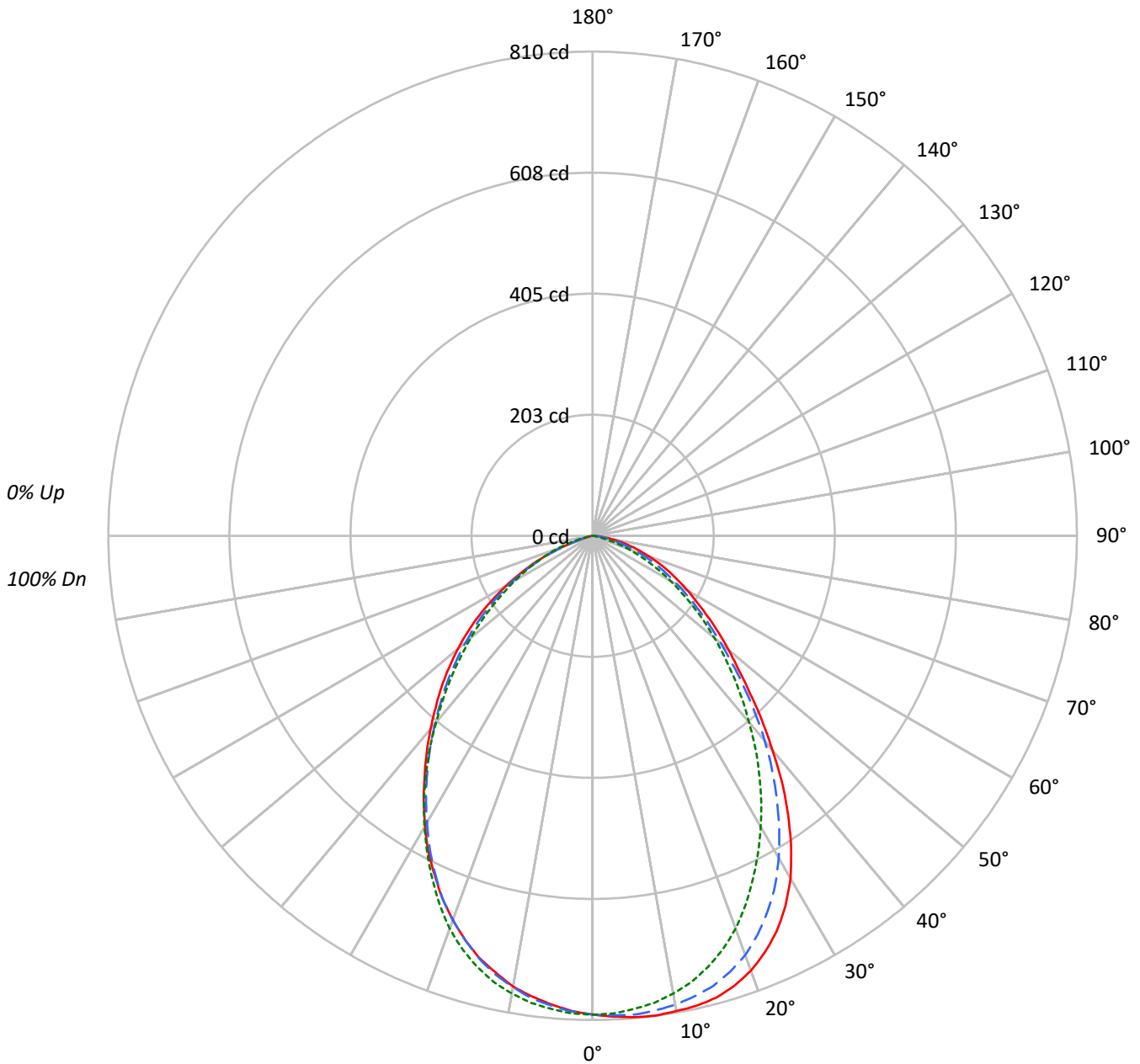
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	24700	24700	24700
5°	25023	24596	24364
10°	25281	24345	23976
15°	25536	23828	23349
20°	25406	22951	22426
25°	24814	21578	21285
30°	23568	20029	19950
35°	21457	18276	18434
40°	18811	16355	16963
45°	16227	14552	15577
50°	14210	12775	14104
55°	12586	10978	12419
60°	11342	9232	10287
65°	10222	7413	7880
70°	8962	5401	4337
75°	7637	2800	1144
80°	5878	746	195
85°	3786	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	5.0
10°-20°	212.4	14.0
20°-30°	301.5	19.8
30°-40°	317.4	20.9
40°-50°	270.0	17.7
50°-60°	195.1	12.8
60°-70°	111.0	7.3
70°-80°	35.0	2.3
80°-90°	4.3	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°	589.5	38.7
0°-40°	906.9	59.6
0°-60°	1372.1	90.1
0°-90°	1522.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1522.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	801	801	801	801	801	
5°	808	804	795	789	787	77
15°	800	780	746	732	731	225
25°	729	693	634	624	626	334
35°	570	537	486	482	490	355
45°	372	358	334	342	357	289
55°	234	217	204	216	231	211
65°	140	121	102	100	108	139
75°	64	49	24	11	10	69
85°	11	6	0	0	0	14
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°	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0
2.5°	805.2	806.3	804.2	804.2	806.3	804.2	805.2	805.2	804.2	804.2	803.1
5°	808.4	807.4	807.4	807.4	808.4	806.3	805.2	806.3	804.2	804.2	804.2
7.5°	809.5	809.5	808.4	807.4	807.4	807.4	806.3	805.2	804.2	802.0	801.0
10°	807.4	807.4	808.4	806.3	806.3	804.2	804.2	802.0	802.0	799.9	796.6
12.5°	805.2	804.2	804.2	802.0	802.0	799.9	799.9	796.6	795.7	792.4	789.2
15°	799.9	798.8	796.6	795.7	794.6	793.5	791.3	790.2	787.1	782.8	779.5
17.5°	789.2	788.1	787.1	784.9	782.8	781.7	780.6	777.5	773.1	770.0	764.6
20°	774.2	773.1	773.1	770.0	768.9	765.7	764.6	760.4	757.1	750.7	746.4
22.5°	753.8	754.9	752.9	750.7	748.5	745.3	743.2	738.9	733.6	727.2	721.8
25°	729.3	730.4	728.2	726.1	722.9	720.7	718.7	712.2	706.9	699.4	693.0
27.5°	698.3	698.3	698.3	696.1	690.8	689.7	687.6	681.2	673.7	667.3	660.8
30°	661.9	660.8	660.8	657.7	655.5	651.3	648.0	642.7	637.3	629.9	622.4
32.5°	618.0	619.1	616.0	613.8	610.6	610.6	606.4	602.0	595.6	588.2	580.7
35°	570.0	571.0	568.9	567.8	562.5	561.4	560.3	555.0	550.7	545.4	536.8
37.5°	520.8	519.7	518.6	518.6	515.4	513.3	511.2	507.9	501.5	497.3	493.0
40°	467.3	467.3	467.3	466.2	465.1	463.1	462.0	459.8	455.6	451.3	448.0
42.5°	419.2	419.2	418.1	417.1	414.9	416.0	413.8	411.7	407.4	404.3	402.1
45°	372.1	372.1	372.1	373.2	371.0	367.9	367.9	365.7	363.5	361.5	358.2
47.5°	330.4	333.7	331.5	330.4	331.5	327.3	327.3	325.1	322.9	320.8	316.6
50°	296.2	296.2	296.2	294.0	293.1	293.1	289.8	287.6	286.5	284.5	280.2
52.5°	265.2	263.1	263.1	262.0	260.9	258.8	258.8	256.7	252.3	250.3	247.0
55°	234.1	234.1	233.2	232.1	231.0	229.9	228.8	225.7	223.5	220.3	217.1
57.5°	206.4	208.6	207.5	205.3	203.2	203.2	201.0	198.9	195.7	192.4	189.3
60°	183.9	182.9	182.9	181.8	179.7	178.6	177.5	174.4	171.1	167.9	164.7
62.5°	160.4	160.4	160.4	158.2	156.2	155.1	154.0	151.8	147.6	144.4	142.2
65°	140.1	139.1	138.0	136.9	135.8	133.6	132.6	130.5	127.2	124.0	120.9
67.5°	119.8	118.7	118.7	117.6	114.5	113.4	113.4	110.1	106.9	103.8	100.5
70°	99.4	99.4	99.4	97.4	96.3	95.2	94.1	91.9	88.8	85.6	82.3
72.5°	82.3	81.2	81.2	80.3	77.0	75.9	74.8	72.7	69.5	67.4	65.2
75°	64.1	64.1	63.1	62.1	61.0	59.9	58.8	56.6	53.5	50.2	49.2
77.5°	49.2	48.1	48.1	47.0	44.9	43.9	43.9	41.7	38.4	36.4	34.2
80°	33.1	34.2	33.1	32.1	31.0	29.9	28.9	27.8	25.7	23.5	21.3
82.5°	20.4	21.3	20.4	20.4	19.3	18.2	18.2	16.0	14.9	13.9	12.8
85°	10.7	10.7	10.7	10.7	9.6	9.6	9.6	8.6	7.5	6.4	6.4
87.5°	3.3	4.2	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2	2.2
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°	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0
2.5°	804.2	803.1	802.0	802.0	802.0	802.0	802.0	801.0	799.9	799.9	799.9
5°	802.0	802.0	802.0	801.0	799.9	799.9	797.7	796.6	795.7	794.6	793.5
7.5°	799.9	797.7	796.6	795.7	794.6	794.6	792.4	790.2	790.2	788.1	786.0
10°	793.5	792.4	790.2	788.1	787.1	786.0	783.9	780.6	779.5	777.5	775.3
12.5°	786.0	783.9	781.7	777.5	776.4	775.3	771.0	767.8	765.7	764.6	759.3
15°	776.4	772.0	768.9	763.5	762.4	760.4	757.1	753.8	749.6	746.4	744.3
17.5°	759.3	754.9	749.6	744.3	742.2	742.2	736.7	732.5	727.2	725.0	720.7
20°	738.9	733.6	729.3	722.9	719.6	716.5	713.2	706.9	702.5	699.4	694.0
22.5°	715.4	707.9	702.5	696.1	690.8	687.6	682.3	677.0	671.5	668.4	664.1
25°	685.5	679.0	670.5	664.1	660.8	656.6	650.2	644.8	639.5	634.2	632.0
27.5°	652.3	643.7	636.2	628.8	625.6	622.4	614.9	608.5	604.2	598.9	596.7
30°	616.0	607.4	598.9	592.4	589.2	583.8	579.6	572.1	566.7	562.5	557.2
32.5°	574.3	567.8	560.3	550.7	548.6	544.3	537.9	534.7	528.3	525.0	520.8
35°	529.4	525.0	517.5	510.1	506.8	504.8	499.4	493.0	488.7	485.5	483.3
37.5°	486.6	481.2	473.7	468.4	466.2	463.1	456.6	453.4	449.1	447.1	442.7
40°	440.5	435.2	429.9	426.7	423.4	421.4	417.1	413.8	409.6	406.3	405.2
42.5°	395.7	392.5	388.1	383.9	382.8	379.6	377.5	374.3	371.0	370.1	366.8
45°	355.0	351.9	347.5	343.3	342.2	340.1	339.0	335.8	333.7	333.7	333.7
47.5°	314.4	311.1	306.9	304.7	305.8	301.6	301.6	300.5	298.4	298.4	299.4
50°	278.0	273.8	272.7	270.5	268.4	266.3	267.4	264.1	264.1	266.3	265.2
52.5°	243.8	239.6	238.5	236.3	235.2	235.2	234.1	234.1	233.2	234.1	234.1
55°	212.8	209.5	207.5	205.3	204.2	204.2	204.2	203.2	202.1	204.2	205.3
57.5°	185.0	183.9	181.8	178.6	177.5	176.4	175.3	175.3	175.3	175.3	176.4
60°	160.4	158.2	156.2	152.9	152.9	151.8	150.7	149.7	149.7	149.7	149.7
62.5°	139.1	135.8	132.6	130.5	129.4	128.3	127.2	125.1	125.1	125.1	125.1
65°	117.6	114.5	112.3	110.1	108.0	108.0	105.9	104.8	102.7	101.6	99.4
67.5°	97.4	95.2	93.0	89.8	88.8	87.7	85.6	84.5	81.2	80.3	79.2
70°	79.2	75.9	73.7	71.7	70.6	68.4	66.3	64.1	62.1	59.9	57.7
72.5°	62.1	58.8	56.6	54.6	52.4	52.4	49.2	47.0	43.9	41.7	38.4
75°	46.0	42.8	40.6	37.5	36.4	35.3	32.1	29.9	26.8	23.5	21.3
77.5°	31.0	28.9	26.8	23.5	21.3	21.3	18.2	16.0	13.9	10.7	9.6
80°	19.3	17.1	14.9	12.8	12.8	10.7	9.6	7.5	5.3	4.2	3.3
82.5°	10.7	9.6	8.6	6.4	6.4	5.3	4.2	3.3	2.2	1.1	1.1
85°	5.3	4.2	3.3	3.3	2.2	2.2	2.2	1.1	1.1	0.0	0.0
87.5°	2.2	1.1	1.1	1.1	1.1	1.1	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°	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0
2.5°	798.8	798.8	797.7	797.7	797.7	796.6	797.7	796.6	796.6	796.6	797.7
5°	794.6	792.4	792.4	791.3	791.3	790.2	791.3	790.2	789.2	788.1	789.2
7.5°	786.0	783.9	782.8	781.7	781.7	781.7	780.6	779.5	780.6	777.5	779.5
10°	774.2	773.1	771.0	770.0	768.9	770.0	768.9	766.7	766.7	766.7	765.7
12.5°	759.3	757.1	756.0	754.9	752.9	752.9	753.8	751.8	751.8	749.6	749.6
15°	741.1	738.9	736.7	736.7	734.7	734.7	733.6	733.6	732.5	731.4	731.4
17.5°	718.7	715.4	713.2	714.3	713.2	712.2	712.2	710.1	709.0	710.1	710.1
20°	691.9	689.7	687.6	688.7	686.5	685.5	686.5	683.4	684.4	684.4	684.4
22.5°	661.9	660.8	657.7	657.7	655.5	654.4	655.5	655.5	656.6	655.5	655.5
25°	628.8	626.6	624.6	624.6	623.5	622.4	623.5	624.6	623.5	624.6	624.6
27.5°	593.5	590.3	590.3	588.2	588.2	589.2	588.2	589.2	590.3	590.3	592.4
30°	555.0	553.9	552.9	551.8	551.8	552.9	552.9	552.9	553.9	556.1	556.1
32.5°	518.6	516.5	514.4	514.4	516.5	515.4	516.5	516.5	518.6	518.6	520.8
35°	479.1	479.1	476.9	478.0	478.0	478.0	478.0	480.2	482.2	483.3	485.5
37.5°	442.7	439.5	440.5	440.5	441.6	440.5	443.8	443.8	446.0	446.0	448.0
40°	403.2	403.2	404.3	403.2	404.3	404.3	406.3	408.5	409.6	411.7	412.8
42.5°	365.7	367.9	365.7	366.8	367.9	369.0	370.1	371.0	375.4	377.5	380.7
45°	331.5	332.6	333.7	334.7	333.7	335.8	336.8	339.0	342.2	343.3	344.4
47.5°	298.4	299.4	300.5	301.6	301.6	303.7	304.7	306.9	309.1	310.2	311.1
50°	266.3	268.4	269.4	269.4	270.5	272.7	274.9	274.9	276.9	280.2	281.2
52.5°	237.4	237.4	239.6	240.6	241.7	241.7	244.9	245.9	247.0	249.2	251.2
55°	205.3	208.6	209.5	209.5	211.7	213.9	215.0	216.1	216.1	220.3	220.3
57.5°	177.5	178.6	180.8	180.8	180.8	183.9	183.9	186.1	187.1	188.2	190.4
60°	149.7	151.8	151.8	152.9	151.8	154.0	155.1	157.3	158.2	159.3	160.4
62.5°	124.0	124.0	125.1	125.1	125.1	125.1	127.2	127.2	129.4	130.5	131.6
65°	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	100.5	100.5	102.7
67.5°	77.0	75.9	73.7	74.8	73.7	73.7	72.7	72.7	73.7	73.7	75.9
70°	55.6	54.6	52.4	52.4	51.3	50.2	49.2	48.1	47.0	47.0	47.0
72.5°	36.4	34.2	31.0	29.9	29.9	27.8	25.7	24.6	24.6	24.6	24.6
75°	18.2	16.0	13.9	12.8	12.8	10.7	11.8	10.7	10.7	10.7	10.7
77.5°	7.5	5.3	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
80°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	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



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CATALOG NUMBER: HC815D010-HM80520827-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	801.0	801.0	801.0	801.0	801.0	801.0	801.0	801.0
2.5°	796.6	796.6	794.6	795.7	795.7	795.7	795.7	795.7
5°	787.1	788.1	787.1	788.1	788.1	787.1	787.1	787.1
7.5°	777.5	778.6	777.5	778.6	778.6	778.6	777.5	777.5
10°	765.7	765.7	765.7	765.7	765.7	764.6	765.7	765.7
12.5°	749.6	749.6	749.6	750.7	750.7	749.6	749.6	748.5
15°	732.5	730.4	731.4	732.5	731.4	731.4	731.4	731.4
17.5°	709.0	710.1	709.0	709.0	709.0	709.0	710.1	709.0
20°	684.4	684.4	685.5	684.4	684.4	684.4	684.4	683.4
22.5°	656.6	655.5	655.5	656.6	656.6	655.5	656.6	656.6
25°	625.6	626.6	625.6	625.6	626.6	626.6	626.6	625.6
27.5°	592.4	593.5	594.5	593.5	593.5	593.5	594.5	595.6
30°	558.2	560.3	558.2	558.2	560.3	559.2	560.3	560.3
32.5°	521.9	525.0	523.0	525.0	525.0	526.1	525.0	526.1
35°	485.5	488.7	488.7	488.7	489.7	490.8	490.8	489.7
37.5°	451.3	452.4	452.4	454.5	455.6	456.6	456.6	455.6
40°	416.0	418.1	419.2	419.2	419.2	421.4	423.4	421.4
42.5°	381.7	382.8	383.9	383.9	386.1	387.2	388.1	388.1
45°	348.6	350.8	351.9	352.9	353.9	356.1	355.0	357.2
47.5°	314.4	317.6	318.7	319.7	321.9	322.9	324.0	325.1
50°	283.4	285.5	285.5	287.6	290.9	290.9	293.1	294.0
52.5°	252.3	253.4	254.5	255.6	257.7	259.8	259.8	262.0
55°	222.4	223.5	223.5	224.6	225.7	229.9	231.0	231.0
57.5°	191.5	191.5	193.5	194.6	195.7	197.9	197.9	197.9
60°	161.5	162.6	162.6	163.6	164.7	166.8	167.9	166.8
62.5°	131.6	132.6	132.6	133.6	135.8	136.9	135.8	135.8
65°	103.8	104.8	104.8	105.9	108.0	108.0	106.9	108.0
67.5°	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
70°	48.1	47.0	46.0	47.0	47.0	47.0	46.0	48.1
72.5°	23.5	24.6	24.6	24.6	24.6	24.6	24.6	23.5
75°	10.7	10.7	9.6	9.6	9.6	10.7	10.7	9.6
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)