

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: P584174

Luminaire Tested: **HC825D010-HM82555927-81RWWC**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584174
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: HC825D010-HM82555927-81RWWC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1896.0 lumens
Efficiency: N/A
Efficacy: 70.7 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

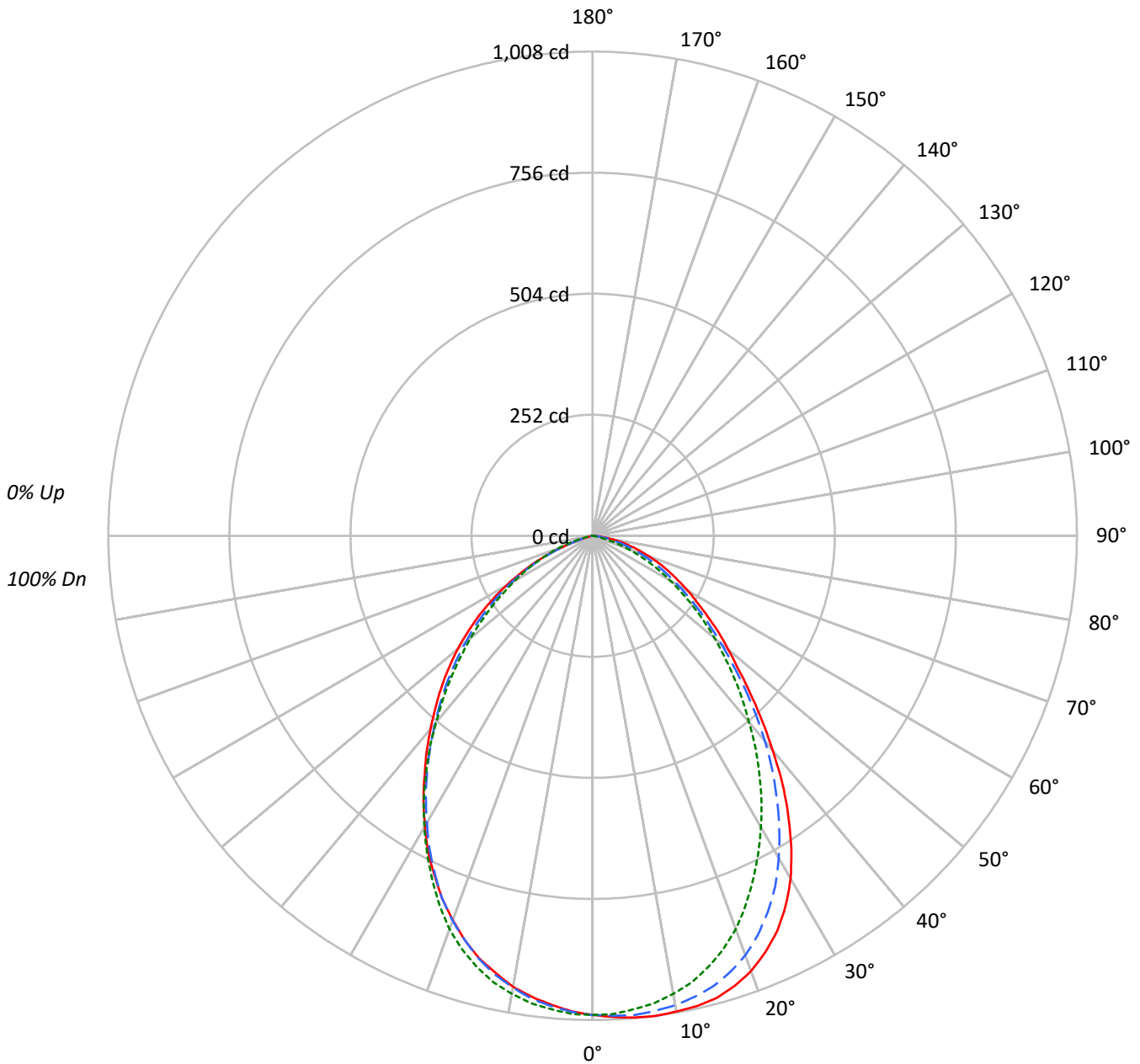
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77			77
3	95	86	79	73	93	84	78	73	82	76	72	79	74	70	76	73	69	67			67
4	88	77	70	64	86	76	69	64	74	68	63	72	66	62	69	65	61	59			59
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	30762	30762	30762
5°	31168	30629	30341
10°	31487	30316	29859
15°	31806	29677	29083
20°	31644	28585	27929
25°	30904	26872	26512
30°	29354	24942	24850
35°	26720	22763	22963
40°	23432	20373	21121
45°	20213	18124	19397
50°	17697	15908	17572
55°	15682	13672	15467
60°	14129	11502	12816
65°	12732	9237	9814
70°	11171	6726	5401
75°	9519	3491	1430
80°	7334	959	231
85°	4706	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	5.0
10°-20°	264.6	14.0
20°-30°	375.6	19.8
30°-40°	395.3	20.9
40°-50°	336.3	17.7
50°-60°	243.0	12.8
60°-70°	138.2	7.3
70°-80°	43.5	2.3
80°-90°	5.3	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°	734.3	38.7
0°-40°	1129.6	59.6
0°-60°	1708.9	90.1
0°-90°	1896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1896.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	998	998	998	998	998	
5°	1007	1002	990	983	980	96
15°	996	971	930	912	911	281
25°	908	863	790	776	779	416
35°	710	669	605	601	610	442
45°	464	446	416	426	445	360
55°	292	270	254	269	288	263
65°	174	150	127	125	134	173
75°	80	61	29	13	12	86
85°	13	8	0	0	0	17
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°	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6
2.5°	1002.9	1004.2	1001.5	1001.5	1004.2	1001.5	1002.9	1002.9	1001.5	1001.5	1000.2
5°	1006.9	1005.6	1005.6	1005.6	1006.9	1004.2	1002.9	1004.2	1001.5	1001.5	1001.5
7.5°	1008.3	1008.3	1006.9	1005.6	1005.6	1005.6	1004.2	1002.9	1001.5	999.0	997.6
10°	1005.6	1005.6	1006.9	1004.2	1004.2	1001.5	1001.5	999.0	999.0	996.3	992.2
12.5°	1002.9	1001.5	1001.5	999.0	999.0	996.3	996.3	992.2	990.9	987.0	982.9
15°	996.3	994.9	992.2	990.9	989.5	988.3	985.6	984.3	980.2	975.0	970.9
17.5°	982.9	981.6	980.2	977.6	975.0	973.6	972.3	968.2	962.9	958.9	952.3
20°	964.3	962.9	962.9	958.9	957.6	953.6	952.3	947.0	943.0	935.0	929.6
22.5°	938.9	940.3	937.6	935.0	932.3	928.3	925.7	920.3	913.7	905.6	899.0
25°	908.3	909.7	907.0	904.4	900.3	897.7	895.1	887.0	880.4	871.1	863.1
27.5°	869.7	869.7	869.7	867.0	860.4	859.1	856.4	848.4	839.1	831.1	823.2
30°	824.4	823.2	823.2	819.1	816.4	811.1	807.1	800.5	793.8	784.5	775.1
32.5°	769.9	771.1	767.2	764.5	760.4	760.4	755.2	749.9	741.8	732.5	723.2
35°	709.8	711.2	708.6	707.3	700.5	699.2	697.9	691.2	685.9	679.2	668.6
37.5°	648.6	647.2	646.0	646.0	642.0	639.3	636.7	632.7	624.7	619.3	614.0
40°	582.1	582.1	582.1	580.7	579.4	576.7	575.3	572.7	567.4	562.1	558.0
42.5°	522.1	522.1	520.8	519.4	516.8	518.1	515.4	512.7	507.4	503.4	500.8
45°	463.5	463.5	463.5	464.8	462.1	458.2	458.2	455.5	452.8	450.1	446.2
47.5°	411.5	415.6	412.9	411.5	412.9	407.6	407.6	404.9	402.2	399.5	394.2
50°	368.9	368.9	368.9	366.3	365.0	365.0	360.9	358.2	357.0	354.3	348.9
52.5°	330.3	327.6	327.6	326.4	325.0	322.3	322.3	319.6	314.4	311.7	307.6
55°	291.7	291.7	290.4	289.0	287.7	286.3	285.0	281.0	278.4	274.3	270.4
57.5°	257.0	259.7	258.4	255.7	253.1	253.1	250.4	247.7	243.7	239.8	235.7
60°	229.1	227.8	227.8	226.4	223.7	222.5	221.1	217.1	213.1	209.1	205.1
62.5°	199.8	199.8	199.8	197.1	194.4	193.1	191.7	189.2	183.8	179.8	177.2
65°	174.5	173.1	171.8	170.5	169.2	166.5	165.1	162.5	158.5	154.5	150.5
67.5°	149.2	147.9	147.9	146.5	142.5	141.1	141.1	137.2	133.2	129.1	125.2
70°	123.9	123.9	123.9	121.2	119.8	118.6	117.2	114.5	110.5	106.6	102.5
72.5°	102.5	101.2	101.2	99.9	95.9	94.6	93.2	90.5	86.6	83.9	81.2
75°	79.9	79.9	78.5	77.3	76.0	74.6	73.3	70.6	66.6	62.6	61.3
77.5°	61.3	59.9	59.9	58.6	56.0	54.6	54.6	51.9	47.9	45.3	42.6
80°	41.3	42.6	41.3	39.9	38.6	37.3	36.0	34.7	32.0	29.3	26.6
82.5°	25.4	26.6	25.4	25.4	24.0	22.7	22.7	20.0	18.6	17.3	15.9
85°	13.3	13.3	13.3	13.3	12.0	12.0	12.0	10.7	9.3	8.0	8.0
87.5°	4.0	5.4	4.0	4.0	4.0	4.0	4.0	4.0	2.7	2.7	2.7
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°	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6
2.5°	1001.5	1000.2	999.0	999.0	999.0	999.0	999.0	997.6	996.3	996.3	996.3
5°	999.0	999.0	999.0	997.6	996.3	996.3	993.6	992.2	990.9	989.5	988.3
7.5°	996.3	993.6	992.2	990.9	989.5	989.5	987.0	984.3	984.3	981.6	978.9
10°	988.3	987.0	984.3	981.6	980.2	978.9	976.3	972.3	970.9	968.2	965.6
12.5°	978.9	976.3	973.6	968.2	967.0	965.6	960.3	956.3	953.6	952.3	945.7
15°	967.0	961.6	957.6	950.9	949.6	947.0	943.0	938.9	933.7	929.6	926.9
17.5°	945.7	940.3	933.7	926.9	924.4	924.4	917.6	912.3	905.6	903.0	897.7
20°	920.3	913.7	908.3	900.3	896.3	892.4	888.3	880.4	875.0	871.1	864.3
22.5°	891.0	881.7	875.0	867.0	860.4	856.4	849.7	843.1	836.4	832.5	827.1
25°	853.8	845.7	835.1	827.1	823.2	817.8	809.8	803.1	796.5	789.8	787.1
27.5°	812.5	801.8	792.4	783.1	779.2	775.1	765.8	757.9	752.5	745.9	743.2
30°	767.2	756.5	745.9	737.9	733.9	727.2	721.9	712.5	705.9	700.5	693.9
32.5°	715.2	707.3	697.9	685.9	683.3	678.0	669.9	666.0	657.9	654.0	648.6
35°	659.2	654.0	644.7	635.3	631.3	628.6	622.0	614.0	608.6	604.7	602.0
37.5°	606.0	599.3	590.0	583.4	580.7	576.7	568.7	564.7	559.4	556.7	551.4
40°	548.7	542.1	535.4	531.5	527.4	524.7	519.4	515.4	510.1	506.1	504.8
42.5°	492.8	488.8	483.4	478.2	476.8	472.8	470.2	466.2	462.1	460.8	456.8
45°	442.2	438.2	432.8	427.6	426.2	423.5	422.2	418.2	415.6	415.6	415.6
47.5°	391.6	387.6	382.2	379.6	380.9	375.6	375.6	374.3	371.6	371.6	372.9
50°	346.3	341.0	339.6	336.9	334.3	331.6	333.0	329.0	329.0	331.6	330.3
52.5°	303.7	298.3	297.0	294.4	293.0	293.0	291.7	291.7	290.4	291.7	291.7
55°	265.0	261.1	258.4	255.7	254.3	254.3	254.3	253.1	251.8	254.3	255.7
57.5°	230.4	229.1	226.4	222.5	221.1	219.8	218.4	218.4	218.4	218.4	219.8
60°	199.8	197.1	194.4	190.5	190.5	189.2	187.8	186.5	186.5	186.5	186.5
62.5°	173.1	169.2	165.1	162.5	161.1	159.9	158.5	155.8	155.8	155.8	155.8
65°	146.5	142.5	139.8	137.2	134.5	134.5	131.8	130.5	127.9	126.6	123.9
67.5°	121.2	118.6	115.9	111.9	110.5	109.2	106.6	105.2	101.2	99.9	98.5
70°	98.5	94.6	91.9	89.2	88.0	85.3	82.6	79.9	77.3	74.6	71.9
72.5°	77.3	73.3	70.6	67.9	65.3	65.3	61.3	58.6	54.6	51.9	47.9
75°	57.2	53.3	50.6	46.7	45.3	44.0	39.9	37.3	33.3	29.3	26.6
77.5°	38.6	36.0	33.3	29.3	26.6	26.6	22.7	20.0	17.3	13.3	12.0
80°	24.0	21.3	18.6	15.9	15.9	13.3	12.0	9.3	6.6	5.4	4.0
82.5°	13.3	12.0	10.7	8.0	8.0	6.6	5.4	4.0	2.7	1.3	1.3
85°	6.6	5.4	4.0	4.0	2.7	2.7	2.7	1.3	1.3	0.0	0.0
87.5°	2.7	1.3	1.3	1.3	1.3	1.3	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°	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6
2.5°	994.9	994.9	993.6	993.6	993.6	992.2	993.6	992.2	992.2	992.2	993.6
5°	989.5	987.0	987.0	985.6	985.6	984.3	985.6	984.3	982.9	981.6	982.9
7.5°	978.9	976.3	975.0	973.6	973.6	973.6	972.3	970.9	972.3	968.2	970.9
10°	964.3	962.9	960.3	958.9	957.6	958.9	957.6	955.0	955.0	955.0	953.6
12.5°	945.7	943.0	941.6	940.3	937.6	937.6	938.9	936.4	936.4	933.7	933.7
15°	923.0	920.3	917.6	917.6	915.0	915.0	913.7	913.7	912.3	911.0	911.0
17.5°	895.1	891.0	888.3	889.7	888.3	887.0	887.0	884.4	883.1	884.4	884.4
20°	861.7	859.1	856.4	857.7	855.0	853.8	855.0	851.1	852.4	852.4	852.4
22.5°	824.4	823.2	819.1	819.1	816.4	815.1	816.4	816.4	817.8	816.4	816.4
25°	783.1	780.5	777.8	777.8	776.5	775.1	776.5	777.8	776.5	777.8	777.8
27.5°	739.2	735.2	735.2	732.5	732.5	733.9	732.5	733.9	735.2	735.2	737.9
30°	691.2	689.9	688.5	687.3	687.3	688.5	688.5	688.5	689.9	692.6	692.6
32.5°	646.0	643.3	640.6	640.6	643.3	642.0	643.3	643.3	646.0	646.0	648.6
35°	596.6	596.6	594.1	595.3	595.3	595.3	595.3	598.0	600.7	602.0	604.7
37.5°	551.4	547.4	548.7	548.7	550.1	548.7	552.8	552.8	555.4	555.4	558.0
40°	502.2	502.2	503.4	502.2	503.4	503.4	506.1	508.8	510.1	512.7	514.1
42.5°	455.5	458.2	455.5	456.8	458.2	459.5	460.8	462.1	467.5	470.2	474.1
45°	412.9	414.2	415.6	416.9	415.6	418.2	419.5	422.2	426.2	427.6	428.9
47.5°	371.6	372.9	374.3	375.6	375.6	378.2	379.6	382.2	384.9	386.3	387.6
50°	331.6	334.3	335.7	335.7	336.9	339.6	342.3	342.3	345.0	348.9	350.3
52.5°	295.6	295.6	298.3	299.7	301.0	301.0	305.0	306.3	307.6	310.3	313.0
55°	255.7	259.7	261.1	261.1	263.8	266.3	267.7	269.0	269.0	274.3	274.3
57.5°	221.1	222.5	225.1	225.1	225.1	229.1	229.1	231.8	233.0	234.4	237.1
60°	186.5	189.2	189.2	190.5	189.2	191.7	193.1	195.8	197.1	198.5	199.8
62.5°	154.5	154.5	155.8	155.8	155.8	155.8	158.5	158.5	161.1	162.5	163.8
65°	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	125.2	125.2	127.9
67.5°	95.9	94.6	91.9	93.2	91.9	91.9	90.5	90.5	91.9	91.9	94.6
70°	69.2	67.9	65.3	65.3	63.9	62.6	61.3	59.9	58.6	58.6	58.6
72.5°	45.3	42.6	38.6	37.3	37.3	34.7	32.0	30.6	30.6	30.6	30.6
75°	22.7	20.0	17.3	15.9	15.9	13.3	14.7	13.3	13.3	13.3	13.3
77.5°	9.3	6.6	5.4	5.4	5.4	4.0	4.0	4.0	4.0	4.0	4.0
80°	2.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
82.5°	1.3	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: P584174

CATALOG NUMBER: HC825D010-HM82555927-81RWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	997.6	997.6	997.6	997.6	997.6	997.6	997.6	997.6
2.5°	992.2	992.2	989.5	990.9	990.9	990.9	990.9	990.9
5°	980.2	981.6	980.2	981.6	981.6	980.2	980.2	980.2
7.5°	968.2	969.6	968.2	969.6	969.6	969.6	968.2	968.2
10°	953.6	953.6	953.6	953.6	953.6	952.3	953.6	953.6
12.5°	933.7	933.7	933.7	935.0	935.0	933.7	933.7	932.3
15°	912.3	909.7	911.0	912.3	911.0	911.0	911.0	911.0
17.5°	883.1	884.4	883.1	883.1	883.1	883.1	884.4	883.1
20°	852.4	852.4	853.8	852.4	852.4	852.4	852.4	851.1
22.5°	817.8	816.4	816.4	817.8	817.8	816.4	817.8	817.8
25°	779.2	780.5	779.2	779.2	780.5	780.5	780.5	779.2
27.5°	737.9	739.2	740.5	739.2	739.2	739.2	740.5	741.8
30°	695.3	697.9	695.3	695.3	697.9	696.6	697.9	697.9
32.5°	649.9	654.0	651.3	654.0	654.0	655.3	654.0	655.3
35°	604.7	608.6	608.6	608.6	610.0	611.3	611.3	610.0
37.5°	562.1	563.4	563.4	566.0	567.4	568.7	568.7	567.4
40°	518.1	520.8	522.1	522.1	522.1	524.7	527.4	524.7
42.5°	475.5	476.8	478.2	478.2	480.9	482.1	483.4	483.4
45°	434.2	436.9	438.2	439.6	440.8	443.5	442.2	444.8
47.5°	391.6	395.6	396.9	398.3	400.9	402.2	403.6	404.9
50°	353.0	355.6	355.6	358.2	362.3	362.3	365.0	366.3
52.5°	314.4	315.7	316.9	318.3	321.0	323.7	323.7	326.4
55°	277.0	278.4	278.4	279.7	281.0	286.3	287.7	287.7
57.5°	238.4	238.4	241.1	242.4	243.7	246.4	246.4	246.4
60°	201.2	202.4	202.4	203.7	205.1	207.8	209.1	207.8
62.5°	163.8	165.1	165.1	166.5	169.2	170.5	169.2	169.2
65°	129.1	130.5	130.5	131.8	134.5	134.5	133.2	134.5
67.5°	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
70°	59.9	58.6	57.2	58.6	58.6	58.6	57.2	59.9
72.5°	29.3	30.6	30.6	30.6	30.6	30.6	30.6	29.3
75°	13.3	13.3	12.0	12.0	12.0	13.3	13.3	12.0
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)