

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: P584183

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584183
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: HC825D010-HM82555927-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1885.3 lumens
Efficiency: N/A
Efficacy: 70.3 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

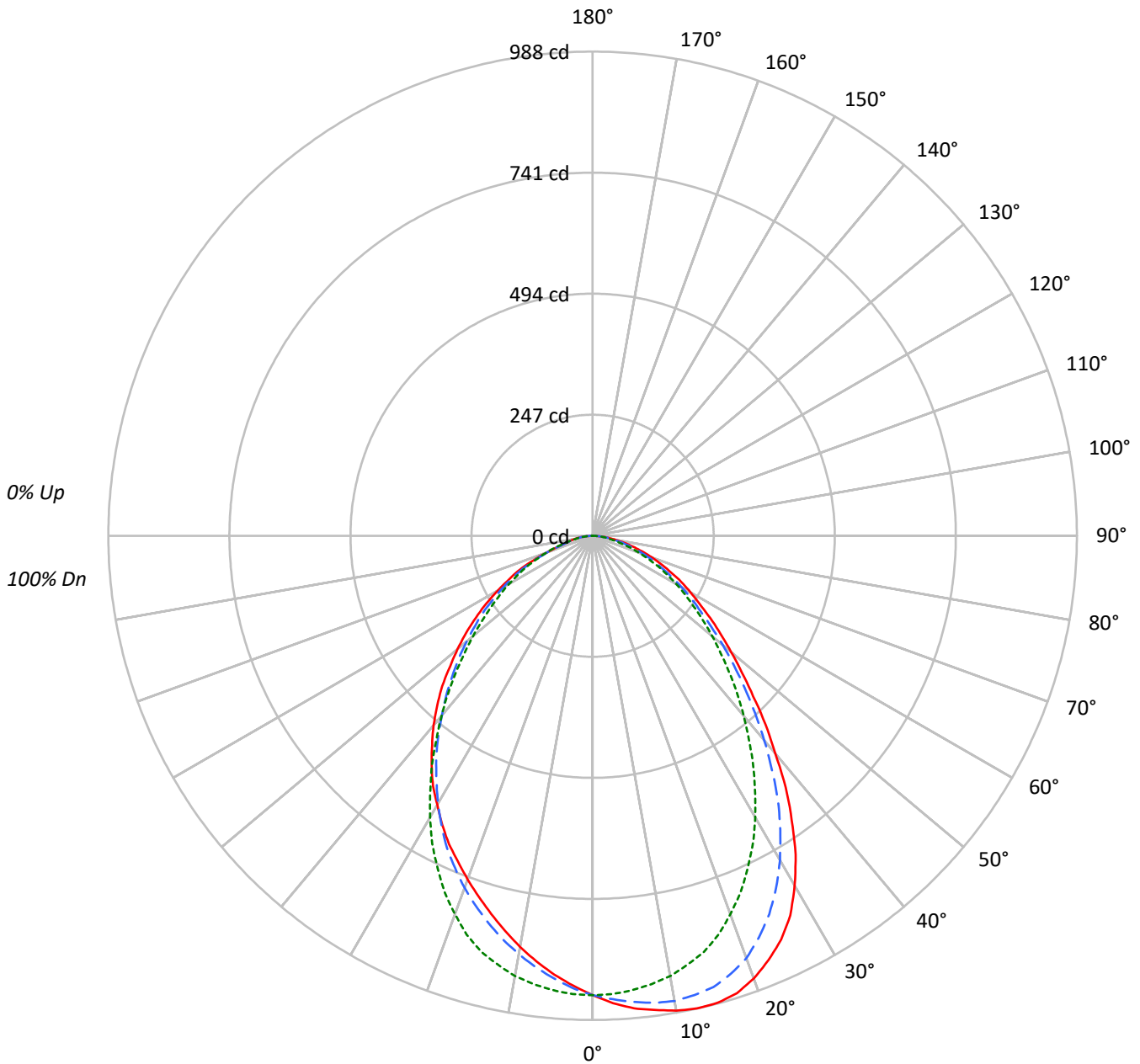
Input Watts (W): 26.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P584183

CATALOG NUMBER: HC825D010-HM82555927-81WWWB

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								
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°	28906	28906	28906
5°	29964	28809	27822
10°	30811	28560	26681
15°	31496	28055	25504
20°	31549	26958	24470
25°	30942	25464	23603
30°	29347	23611	22568
35°	26663	21502	21555
40°	23315	19298	20312
45°	20208	17186	18931
50°	17692	15265	17246
55°	15752	13532	15607
60°	14209	12156	13710
65°	12827	10689	11952
70°	11531	8998	8881
75°	10151	7137	6672
80°	8506	5913	6393
85°	6581	5201	5626



TEST NUMBER: P584183

CATALOG NUMBER: HC825D010-HM82555927-81WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	4.7
10°-20°	249.1	13.2
20°-30°	356.0	18.9
30°-40°	378.2	20.1
40°-50°	325.6	17.3
50°-60°	243.5	12.9
60°-70°	155.3	8.2
70°-80°	70.7	3.7
80°-90°	18.5	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°	693.5	36.8
0°-40°	1071.7	56.8
0°-60°	1640.8	87.0
0°-90°	1885.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1885.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	937	937	937	937	937	
5°	968	955	931	907	899	93
15°	987	953	879	819	799	278
25°	909	852	748	703	694	416
35°	708	659	571	557	573	441
45°	463	438	394	405	434	360
55°	293	269	252	273	290	263
65°	176	156	146	153	164	175
75°	85	73	60	55	56	91
85°	19	16	15	16	16	22
90°	0	0	0	0	0	



TEST NUMBER: P584183

CATALOG NUMBER: HC825D010-HM82555927-81WWWB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4
2.5°	954.7	952.0	953.4	952.0	953.4	953.4	950.7	950.7	950.7	950.7	946.7
5°	968.0	966.6	966.6	965.4	964.0	965.4	964.0	962.7	960.0	958.7	954.7
7.5°	975.9	975.9	975.9	975.9	974.7	973.4	972.0	969.3	966.6	964.0	961.4
10°	984.0	985.4	984.0	982.7	981.3	978.6	977.3	974.7	970.7	966.6	964.0
12.5°	987.9	987.9	986.6	986.6	984.0	982.7	978.6	974.7	970.7	966.6	960.0
15°	986.6	986.6	985.4	984.0	980.0	978.6	975.9	972.0	965.4	960.0	953.4
17.5°	978.6	977.3	974.7	974.7	969.3	968.0	965.4	960.0	953.4	945.3	937.4
20°	961.4	961.4	960.0	958.7	953.4	949.4	946.7	940.0	934.8	925.4	917.4
22.5°	937.4	940.0	937.4	934.8	928.0	926.7	922.8	914.7	906.7	896.1	886.8
25°	909.4	908.1	906.7	904.0	898.8	896.1	890.8	882.8	874.8	862.8	852.1
27.5°	873.4	868.1	868.1	862.8	858.8	854.8	852.1	844.1	833.5	824.2	810.8
30°	824.2	825.5	818.9	817.6	810.8	808.2	802.9	794.9	785.6	774.9	764.3
32.5°	770.9	767.0	767.0	761.6	756.3	752.3	750.9	741.6	733.7	723.0	712.4
35°	708.3	708.3	704.4	703.0	697.7	695.1	691.0	685.8	676.5	667.0	659.1
37.5°	647.1	644.5	643.1	640.5	636.4	632.5	632.5	623.2	621.8	611.2	600.5
40°	579.2	581.9	579.2	575.2	573.8	571.2	569.9	564.5	560.6	551.3	544.6
42.5°	521.9	519.3	519.3	518.0	512.6	512.6	510.0	507.3	500.7	498.0	490.0
45°	463.4	466.0	462.0	463.4	458.1	458.1	458.1	452.7	447.4	443.4	438.1
47.5°	412.8	414.1	414.1	410.1	408.7	408.7	406.1	403.5	399.4	394.1	390.1
50°	368.8	370.1	367.5	366.2	363.5	362.2	362.2	356.8	354.2	348.8	346.1
52.5°	328.9	328.9	327.5	327.5	323.6	323.6	320.9	316.9	314.3	311.6	305.0
55°	293.0	293.0	291.6	290.3	290.3	286.2	284.9	281.0	278.3	273.0	269.0
57.5°	258.3	259.7	258.3	257.0	255.6	254.3	251.7	247.7	245.0	241.0	238.3
60°	230.4	230.4	229.0	227.7	225.0	223.7	222.3	219.7	215.7	213.0	209.1
62.5°	203.7	202.3	201.1	199.8	197.1	197.1	194.4	191.7	187.8	185.1	182.4
65°	175.8	175.8	174.4	174.4	173.1	170.5	169.1	167.8	162.4	161.1	155.8
67.5°	150.4	151.8	149.2	149.2	146.5	146.5	145.1	141.1	139.8	137.2	134.5
70°	127.9	127.9	127.9	126.5	123.8	122.5	121.1	118.6	117.2	114.5	111.8
72.5°	105.2	105.2	103.9	103.9	102.5	101.2	99.8	97.2	97.2	94.6	91.9
75°	85.2	85.2	83.9	82.6	81.2	81.2	79.9	78.5	75.9	74.6	73.2
77.5°	65.3	65.3	65.3	63.9	62.6	62.6	62.6	59.9	57.2	57.2	56.0
80°	47.9	47.9	46.7	46.7	45.3	45.3	45.3	44.0	42.6	41.3	39.9
82.5°	32.0	32.0	32.0	32.0	30.6	30.6	30.6	29.3	27.9	27.9	27.9
85°	18.6	18.6	18.6	18.6	17.3	17.3	17.3	17.3	17.3	15.9	15.9
87.5°	8.0	6.6	8.0	6.6	8.0	6.6	8.0	6.6	6.6	6.6	6.6
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: P584183

CATALOG NUMBER: HC825D010-HM82555927-81WWWB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4
2.5°	948.0	946.7	945.3	944.1	944.1	942.7	940.0	938.7	937.4	936.0	936.0
5°	953.4	952.0	949.4	946.7	945.3	942.7	940.0	937.4	934.8	930.7	929.4
7.5°	957.3	953.4	950.7	945.3	944.1	941.4	937.4	933.4	928.0	922.8	918.7
10°	957.3	952.0	948.0	941.4	938.7	936.0	930.7	924.1	917.4	912.1	905.4
12.5°	954.7	948.0	941.4	934.8	930.7	926.7	918.7	912.1	904.0	896.1	890.8
15°	945.3	937.4	929.4	921.4	917.4	912.1	904.0	894.7	886.8	878.8	869.5
17.5°	928.0	920.1	910.8	901.5	896.1	892.1	880.1	873.4	861.5	853.5	845.5
20°	905.4	896.1	884.1	874.8	868.1	864.1	854.8	842.8	833.5	821.5	813.5
22.5°	876.1	864.1	852.1	842.8	836.2	830.9	818.9	806.9	798.9	788.3	779.0
25°	841.6	829.6	817.6	804.2	797.6	792.2	781.6	770.9	760.3	748.4	740.3
27.5°	800.3	786.9	776.3	764.3	757.7	749.6	737.7	727.0	716.4	708.3	697.7
30°	755.0	740.3	729.6	717.6	711.0	704.4	692.4	681.7	672.4	663.1	657.7
32.5°	700.4	689.7	679.0	667.0	661.8	657.7	645.7	635.2	624.5	616.5	612.5
35°	648.4	636.4	627.1	616.5	609.8	605.8	595.1	585.8	580.6	571.2	565.9
37.5°	593.8	584.5	573.8	563.2	559.2	555.2	547.2	537.9	530.0	523.2	520.7
40°	536.6	528.6	519.3	512.6	508.7	504.6	498.0	491.3	486.0	479.4	476.7
42.5°	482.0	476.7	468.7	460.7	456.7	455.4	447.4	442.0	439.4	436.8	434.1
45°	432.7	424.8	419.4	414.1	410.1	407.5	403.5	399.4	396.8	394.1	391.5
47.5°	384.8	378.1	372.8	368.8	364.9	363.5	360.8	356.8	354.2	354.2	354.2
50°	340.9	335.6	330.2	327.5	326.2	323.6	320.9	319.6	318.2	318.2	318.2
52.5°	302.3	296.9	293.0	290.3	290.3	287.6	284.9	283.7	283.7	283.7	283.7
55°	266.3	262.3	259.7	257.0	254.3	252.9	252.9	252.9	251.7	251.7	252.9
57.5°	234.3	231.7	227.7	225.0	223.7	223.7	222.3	221.1	222.3	223.7	225.0
60°	205.0	202.3	201.1	197.1	197.1	197.1	195.7	195.7	195.7	197.1	198.4
62.5°	178.4	177.1	174.4	173.1	171.7	171.7	170.5	170.5	170.5	170.5	171.7
65°	154.5	151.8	149.2	149.2	149.2	147.8	147.8	145.1	146.5	146.5	145.1
67.5°	131.8	129.1	127.9	126.5	125.2	125.2	123.8	122.5	121.1	121.1	121.1
70°	110.5	107.9	107.9	105.2	105.2	103.9	102.5	102.5	101.2	99.8	98.5
72.5°	89.2	87.8	86.6	85.2	85.2	85.2	83.9	82.6	81.2	79.9	77.3
75°	70.6	70.6	67.9	66.6	66.6	65.3	63.9	62.6	61.2	59.9	58.6
77.5°	54.6	53.3	50.6	49.2	49.2	49.2	47.9	46.7	45.3	44.0	42.6
80°	39.9	38.6	37.2	36.0	36.0	36.0	34.7	34.7	33.3	33.3	33.3
82.5°	26.6	26.6	25.3	25.3	25.3	25.3	24.0	24.0	24.0	24.0	24.0
85°	15.9	15.9	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
87.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
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: HC825D010-HM82555927-81WWWB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4
2.5°	933.4	933.4	930.7	929.4	928.0	929.4	926.7	925.4	924.1	924.1	922.8
5°	925.4	924.1	918.7	917.4	916.0	914.7	912.1	909.4	906.7	905.4	904.0
7.5°	914.7	910.8	905.4	904.0	902.8	898.8	894.7	892.1	888.1	886.8	884.1
10°	900.1	894.7	890.8	886.8	884.1	880.1	876.1	872.2	866.8	865.5	861.5
12.5°	882.8	876.1	868.1	866.8	862.8	857.5	852.1	848.2	844.1	841.6	837.5
15°	861.5	854.8	846.8	842.8	838.9	834.8	828.2	822.8	818.9	814.9	810.8
17.5°	836.2	828.2	821.5	817.6	814.9	808.2	802.9	796.2	792.2	788.3	784.3
20°	805.6	798.9	789.6	785.6	784.3	779.0	772.3	769.7	764.3	760.3	757.7
22.5°	770.9	764.3	756.3	753.6	748.4	745.7	738.9	736.4	733.7	729.6	728.3
25°	732.3	725.7	719.0	717.6	713.7	711.0	707.1	703.0	703.0	699.0	699.0
27.5°	692.4	685.8	680.4	677.7	676.5	673.8	669.7	668.4	667.0	665.8	665.8
30°	649.8	641.8	639.1	637.8	636.4	633.8	632.5	629.8	631.1	632.5	631.1
32.5°	604.6	601.9	596.5	593.8	595.1	593.8	591.2	593.8	592.6	595.1	596.5
35°	560.6	557.9	555.2	555.2	552.5	552.5	552.5	553.9	556.6	557.9	560.6
37.5°	518.0	513.9	512.6	511.2	512.6	512.6	512.6	515.3	518.0	520.7	524.6
40°	472.7	470.1	470.1	470.1	470.1	474.0	472.7	475.4	478.0	482.0	486.0
42.5°	430.0	430.0	431.4	431.4	431.4	431.4	434.1	438.1	442.0	446.1	450.0
45°	390.1	390.1	390.1	392.8	392.8	394.1	399.4	402.1	404.8	408.7	412.8
47.5°	352.9	352.9	354.2	355.6	356.8	359.5	362.2	366.2	370.1	372.8	376.9
50°	318.2	319.6	322.2	324.9	324.9	326.2	330.2	332.9	335.6	339.5	340.9
52.5°	284.9	287.6	290.3	291.6	293.0	295.6	296.9	300.9	302.3	306.2	307.6
55°	254.3	255.6	259.7	261.0	261.0	263.6	266.3	269.0	273.0	273.0	275.6
57.5°	226.3	227.7	230.4	231.7	230.4	234.3	235.7	238.3	239.7	242.4	243.6
60°	198.4	201.1	202.3	202.3	203.7	205.0	207.7	207.7	210.4	213.0	213.0
62.5°	171.7	173.1	174.4	175.8	177.1	175.8	179.8	179.8	182.4	183.7	186.4
65°	146.5	147.8	147.8	149.2	149.2	150.4	150.4	151.8	153.1	155.8	157.1
67.5°	121.1	121.1	121.1	122.5	121.1	122.5	122.5	123.8	123.8	126.5	127.9
70°	98.5	97.2	95.9	95.9	95.9	95.9	94.6	95.9	95.9	97.2	97.2
72.5°	75.9	74.6	73.2	71.9	71.9	70.6	69.2	70.6	70.6	71.9	71.9
75°	57.2	54.6	54.6	54.6	53.3	53.3	53.3	54.6	54.6	54.6	56.0
77.5°	42.6	42.6	41.3	41.3	41.3	42.6	42.6	44.0	44.0	44.0	44.0
80°	32.0	33.3	33.3	33.3	33.3	34.7	34.7	34.7	34.7	36.0	36.0
82.5°	24.0	24.0	24.0	24.0	25.3	25.3	25.3	25.3	25.3	25.3	25.3
85°	14.7	15.9	15.9	14.7	15.9	15.9	15.9	15.9	15.9	15.9	15.9
87.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
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: P584183

CATALOG NUMBER: HC825D010-HM82555927-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	937.4	937.4	937.4	937.4	937.4	937.4	937.4	937.4
2.5°	921.4	921.4	921.4	921.4	920.1	920.1	920.1	918.7
5°	901.5	901.5	901.5	898.8	900.1	900.1	897.4	898.8
7.5°	881.5	880.1	878.8	878.8	877.5	876.1	874.8	876.1
10°	858.8	854.8	854.8	853.5	853.5	850.9	850.9	852.1
12.5°	833.5	830.9	830.9	829.6	828.2	826.9	825.5	825.5
15°	808.2	805.6	804.2	802.9	801.5	798.9	800.3	798.9
17.5°	782.9	779.0	779.0	777.6	776.3	773.6	773.6	772.3
20°	753.6	752.3	749.6	750.9	749.6	747.0	745.7	745.7
22.5°	724.4	724.4	723.0	723.0	721.7	720.3	719.0	719.0
25°	696.4	695.1	696.4	696.4	692.4	692.4	692.4	693.7
27.5°	664.5	665.8	664.5	664.5	664.5	664.5	665.8	664.5
30°	632.5	632.5	632.5	633.8	636.4	635.2	635.2	633.8
32.5°	597.8	599.2	599.2	600.5	601.9	604.6	604.6	605.8
35°	563.2	565.9	567.2	565.9	569.9	569.9	572.6	572.6
37.5°	527.3	528.6	531.3	532.6	535.2	536.6	537.9	537.9
40°	488.7	494.0	495.3	496.7	500.7	500.7	501.9	504.6
42.5°	452.7	458.1	459.4	460.7	463.4	467.4	466.0	468.7
45°	418.0	422.1	423.4	424.8	428.7	430.0	430.0	434.1
47.5°	380.8	383.5	384.8	387.4	390.1	392.8	395.5	394.1
50°	343.6	347.5	350.2	351.5	355.6	356.8	358.1	359.5
52.5°	310.2	312.9	314.3	315.5	319.6	320.9	322.2	324.9
55°	278.3	279.6	282.3	281.0	284.9	286.2	287.6	290.3
57.5°	246.3	247.7	249.0	249.0	251.7	254.3	255.6	257.0
60°	215.7	218.4	219.7	219.7	219.7	222.3	222.3	222.3
62.5°	187.8	187.8	189.1	189.1	191.7	191.7	191.7	191.7
65°	158.5	159.8	161.1	161.1	163.8	162.4	165.1	163.8
67.5°	127.9	127.9	130.5	130.5	129.1	130.5	130.5	130.5
70°	97.2	97.2	98.5	98.5	98.5	98.5	98.5	98.5
72.5°	71.9	71.9	71.9	73.2	71.9	71.9	73.2	71.9
75°	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
77.5°	44.0	44.0	45.3	45.3	45.3	45.3	45.3	45.3
80°	36.0	36.0	36.0	36.0	37.2	36.0	36.0	36.0
82.5°	26.6	25.3	26.6	25.3	26.6	26.6	26.6	26.6
85°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
87.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
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)