

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P857224

Luminaire Tested: **LX4C20D010 EX4C209730 4LBLWWH**

Issue Date: 2/14/2022

Test Information

Test Method: LM-79-08
Report Number: P857224
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 2/14/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C20D010 EX4C209730 4LBLWWH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 97CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

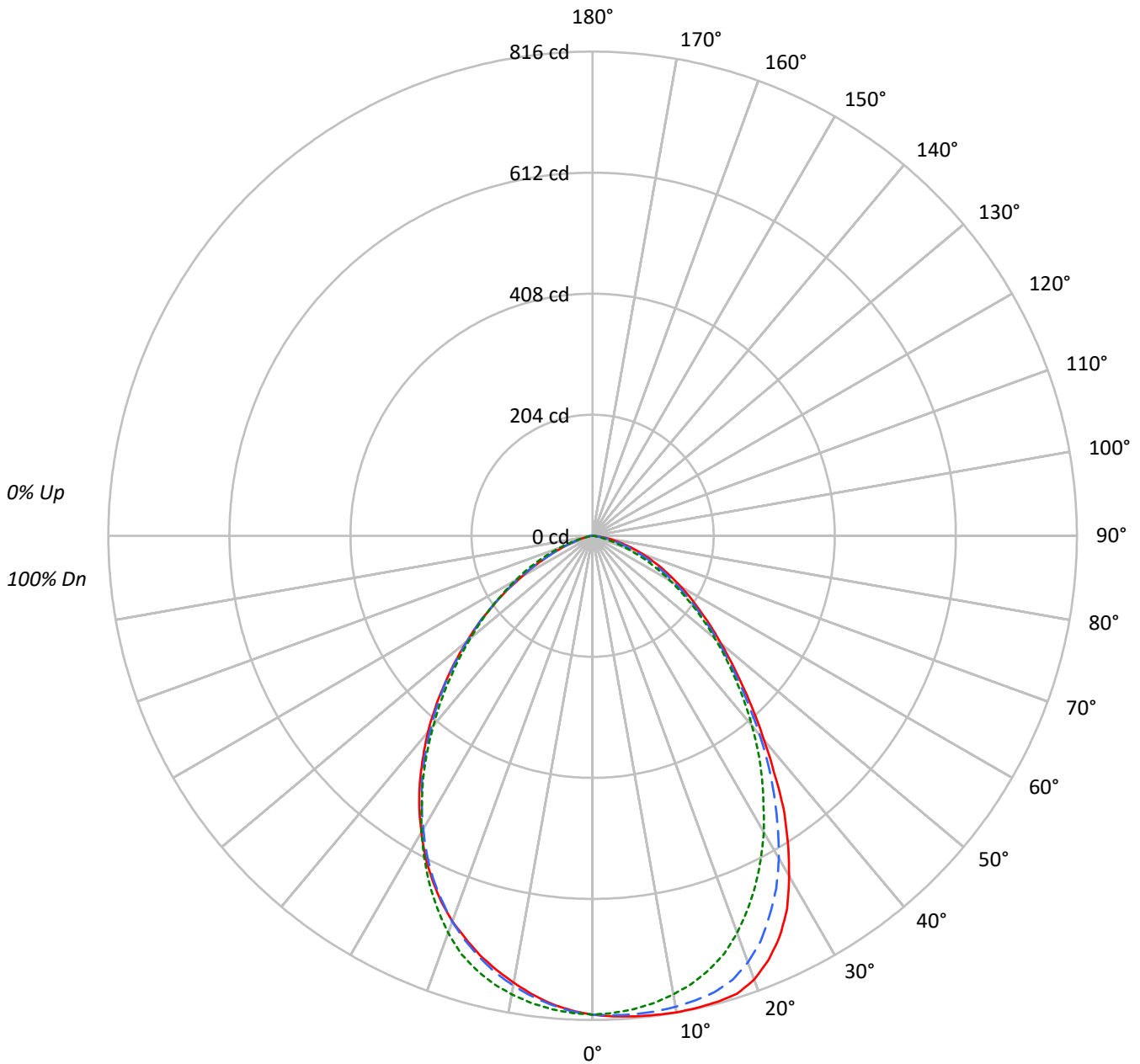
Lumens per Lamp: N/A
Luminaire Lumens: 1521.0 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
Input Voltage (V):
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	94	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68																			
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60																			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47																			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43																			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39																			
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35																			
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	99155	99155	99155
5°	100261	98732	97659
10°	101733	97890	95420
15°	103403	96332	93139
20°	104054	93059	90379
25°	101069	88029	86687
30°	93925	81824	81867
35°	84077	74583	76158
40°	71992	66860	69298
45°	61973	58950	61157
50°	53878	51317	52865
55°	47400	44144	43759
60°	42188	36831	33932
65°	37006	29506	24535
70°	31789	20834	16631
75°	25775	12104	9731
80°	18465	5235	4811
85°	7048	2255	2255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	5.0
10°-20°	215.3	14.2
20°-30°	307.5	20.2
30°-40°	321.6	21.1
40°-50°	269.5	17.7
50°-60°	188.6	12.4
60°-70°	102.7	6.8
70°-80°	35.6	2.3
80°-90°	4.1	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°	598.8	39.4
0°-40°	920.5	60.5
0°-60°	1378.6	90.6
0°-90°	1521.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1521.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	807	807	807	807	807	
5°	813	809	801	794	792	78
15°	813	796	757	736	732	230
25°	746	706	649	637	640	340
35°	561	533	497	501	508	348
45°	357	349	339	350	352	277
55°	221	214	206	206	204	200
65°	127	116	102	85	84	127
75°	54	44	26	20	20	59
85°	5	3	2	2	2	9
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°	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1
2.5°	810.8	809.9	810.2	810.2	810.2	809.9	810.2	809.9	809.9	809.6	808.9
5°	813.0	812.4	812.4	812.4	812.0	811.7	811.7	811.4	810.8	810.5	809.3
7.5°	814.5	813.9	813.9	813.6	813.3	813.0	812.7	811.7	810.8	810.2	808.6
10°	815.5	814.5	814.5	813.9	813.3	813.0	812.4	811.1	809.9	808.3	806.1
12.5°	814.8	813.9	813.6	813.0	811.7	811.1	810.5	808.9	806.8	804.6	801.8
15°	813.0	812.4	811.7	810.8	809.3	808.3	807.7	805.2	802.4	799.3	795.9
17.5°	809.3	808.3	807.1	805.8	803.7	802.7	801.2	798.1	794.0	789.7	784.4
20°	795.9	795.3	794.0	791.9	788.5	787.2	785.0	781.0	775.7	770.5	764.9
22.5°	773.9	772.9	771.1	769.2	766.1	763.9	762.1	756.5	750.6	745.0	739.7
25°	745.6	744.7	742.2	739.7	736.6	732.9	731.0	726.7	720.8	713.6	705.9
27.5°	709.3	706.2	705.3	702.5	697.8	696.6	693.8	688.2	682.6	676.4	669.9
30°	662.1	662.1	660.3	659.0	654.7	653.4	650.3	644.4	641.3	632.6	627.7
32.5°	612.1	611.5	610.0	609.0	606.6	604.4	601.3	598.2	591.3	587.0	580.2
35°	560.6	556.9	557.5	555.6	554.1	551.6	551.3	547.9	541.7	539.2	533.0
37.5°	501.9	500.4	502.6	499.8	498.2	498.5	496.0	493.9	491.4	487.0	485.8
40°	448.9	450.1	449.8	447.3	448.6	447.0	444.5	442.3	441.1	438.3	437.4
42.5°	401.4	399.5	398.9	398.9	399.2	399.2	398.0	396.4	396.4	393.6	390.8
45°	356.7	356.7	356.0	357.9	355.1	355.1	354.2	353.9	352.6	352.0	348.6
47.5°	318.2	317.9	317.6	317.2	316.9	316.9	315.1	313.5	313.2	311.3	309.5
50°	281.9	283.7	283.1	281.5	280.9	281.2	280.0	279.1	278.8	275.6	276.0
52.5°	251.4	251.1	251.7	250.8	249.3	249.6	248.3	247.1	245.8	244.3	243.1
55°	221.3	222.9	222.3	221.3	221.0	220.4	219.5	217.9	217.6	214.2	213.9
57.5°	196.2	195.9	195.3	193.7	193.4	192.5	192.5	191.2	189.4	187.5	185.9
60°	171.7	171.7	170.7	170.4	169.2	168.9	168.6	167.3	165.1	163.6	161.1
62.5°	148.1	148.7	148.1	147.1	146.2	145.0	144.3	143.4	141.5	140.0	137.8
65°	127.3	127.0	126.6	125.4	125.1	123.9	123.5	121.7	119.8	118.6	116.1
67.5°	107.4	106.5	106.5	105.9	105.2	104.3	103.7	101.8	99.6	98.4	95.9
70°	88.5	87.8	87.8	87.8	86.3	85.4	85.1	84.1	81.0	79.8	77.3
72.5°	71.1	70.8	70.5	69.5	68.6	68.6	67.4	65.5	63.9	62.4	60.5
75°	54.3	54.9	54.3	53.1	52.8	52.1	51.2	49.7	48.1	46.3	44.1
77.5°	39.7	39.1	38.5	38.5	37.9	36.6	36.3	35.1	33.2	32.0	29.8
80°	26.1	25.8	25.1	24.5	24.2	23.9	23.6	22.3	20.5	19.6	17.7
82.5°	14.3	14.0	14.0	13.7	12.7	12.7	12.4	11.2	10.2	9.6	8.7
85°	5.0	5.0	5.0	4.7	4.7	4.7	4.3	4.0	3.7	3.4	2.8
87.5°	0.6	0.3	0.6	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.3
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°	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1
2.5°	808.3	807.7	807.4	807.1	806.8	806.5	806.1	805.5	805.2	804.9	804.3
5°	808.3	807.1	806.5	805.5	804.9	804.3	803.4	802.4	801.5	800.6	799.6
7.5°	807.1	805.2	804.0	802.1	801.5	800.6	798.7	797.5	795.9	794.0	791.9
10°	804.0	801.8	799.3	796.8	795.9	794.4	791.9	789.7	787.2	784.7	782.6
12.5°	799.0	795.6	792.5	789.1	787.2	785.7	782.2	779.1	776.0	773.2	769.5
15°	791.6	787.5	783.5	778.8	776.7	774.8	769.8	766.1	761.1	757.4	753.7
17.5°	779.5	773.2	768.3	762.4	759.3	757.1	752.8	746.9	742.2	738.2	733.8
20°	758.7	752.8	745.9	739.4	736.0	733.2	727.0	720.8	716.1	711.8	707.1
22.5°	731.3	723.9	718.9	710.9	708.1	704.6	697.2	691.6	686.3	682.0	677.6
25°	698.1	691.6	684.8	677.3	673.9	669.9	663.7	657.8	654.4	649.4	644.1
27.5°	659.9	654.7	646.3	639.8	636.4	633.2	627.3	622.1	617.1	613.7	608.7
30°	619.6	613.4	605.9	599.1	597.2	593.5	588.2	584.2	578.9	576.8	574.6
32.5°	575.2	568.1	562.5	558.1	554.4	551.3	548.5	542.0	541.1	535.5	534.8
35°	526.8	523.7	518.4	514.7	511.6	509.4	504.7	501.6	498.2	497.3	495.1
37.5°	481.1	477.4	472.5	469.0	466.9	466.6	463.1	461.3	458.8	457.6	455.1
40°	433.3	431.8	427.4	426.8	423.4	423.1	421.2	419.1	416.9	416.9	417.2
42.5°	389.3	387.4	385.5	383.4	381.5	381.5	380.6	379.9	379.3	378.4	379.9
45°	348.0	345.5	344.3	342.1	343.0	341.1	340.5	340.5	339.6	339.3	341.5
47.5°	309.5	306.7	305.4	304.8	304.8	305.1	302.3	303.3	303.0	303.6	304.5
50°	274.4	271.9	270.1	270.1	270.4	269.1	267.9	268.8	267.9	268.5	270.7
52.5°	241.8	239.3	238.4	238.4	236.5	236.2	236.8	235.6	235.9	236.2	237.5
55°	211.7	210.2	208.6	207.0	207.4	206.7	205.5	205.2	205.8	206.1	207.7
57.5°	184.7	182.5	180.4	179.7	179.1	179.1	177.6	177.2	177.9	176.3	176.3
60°	158.9	157.7	154.9	154.0	154.0	152.4	151.2	151.8	150.2	149.9	150.2
62.5°	135.0	134.1	132.2	130.4	129.8	129.1	127.6	127.0	126.3	125.1	123.2
65°	114.2	112.1	109.9	108.6	107.7	106.2	105.2	104.0	102.1	101.5	99.6
67.5°	93.4	91.3	89.1	88.2	87.2	86.3	84.7	83.2	81.0	78.5	76.4
70°	75.1	72.3	71.1	68.6	68.0	66.7	64.6	63.0	60.8	58.0	55.9
72.5°	57.4	55.6	53.7	51.5	50.0	49.0	47.2	44.7	42.2	40.7	38.5
75°	41.3	40.4	37.9	35.4	34.8	33.5	31.4	29.8	27.9	25.5	23.6
77.5°	27.9	26.1	24.5	22.3	21.7	20.5	19.2	17.7	16.5	14.9	13.7
80°	16.5	14.9	14.0	12.4	11.8	11.2	10.2	9.0	8.1	7.4	7.1
82.5°	8.1	6.8	6.5	5.6	5.3	5.0	4.3	4.0	3.4	3.4	3.4
85°	2.8	2.2	2.2	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.3
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°	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1
2.5°	804.0	803.7	803.4	803.0	803.0	802.7	802.7	802.4	802.4	802.1	802.1
5°	798.4	797.5	796.8	796.2	796.2	795.3	794.7	794.0	793.7	793.7	793.1
7.5°	790.6	789.4	788.1	787.2	786.9	785.4	784.1	784.1	782.9	782.2	781.6
10°	780.4	778.2	776.3	775.4	774.2	773.2	771.7	770.8	769.8	768.3	768.0
12.5°	766.4	764.9	762.1	760.8	760.2	758.3	755.9	754.6	754.3	753.1	752.1
15°	750.6	747.2	744.7	743.1	743.1	740.0	738.8	736.9	735.7	734.8	734.4
17.5°	730.1	726.7	724.2	722.0	721.4	718.9	717.1	716.4	714.9	715.5	714.0
20°	703.7	700.9	699.1	696.3	696.3	694.7	694.1	692.5	691.9	691.3	691.9
22.5°	675.5	672.0	668.9	668.6	668.6	666.5	666.2	665.8	664.6	665.5	665.2
25°	642.2	639.8	637.9	637.6	637.6	636.4	635.1	635.7	636.7	636.4	637.3
27.5°	607.8	605.3	604.7	604.4	603.8	603.4	604.1	604.1	605.0	606.2	607.5
30°	570.5	569.9	569.0	568.7	568.1	569.6	570.2	571.2	570.9	572.7	574.0
32.5°	533.3	532.1	531.7	532.4	533.3	533.0	534.8	535.5	536.1	538.3	539.2
35°	495.7	495.4	494.8	494.8	495.1	497.6	497.6	499.8	501.0	501.6	504.1
37.5°	455.4	456.6	457.2	458.2	458.5	459.4	460.0	462.2	463.4	464.7	465.9
40°	418.4	417.8	420.6	418.8	419.4	422.2	423.4	423.1	425.0	426.8	428.1
42.5°	379.0	379.9	380.6	381.2	382.7	383.1	384.6	386.8	387.4	389.6	390.2
45°	340.8	341.1	342.4	343.6	344.6	347.0	347.7	348.6	350.5	350.5	351.4
47.5°	304.8	306.1	306.1	307.9	309.5	309.2	311.3	312.0	311.7	313.2	313.8
50°	270.4	272.2	271.9	273.2	273.8	274.1	276.0	276.6	275.3	276.9	277.2
52.5°	237.5	238.4	239.6	240.0	239.3	240.9	240.3	241.5	241.2	242.4	241.2
55°	207.4	207.0	207.0	207.7	207.0	207.7	208.3	207.0	206.1	207.4	207.0
57.5°	177.2	177.2	176.6	177.6	176.6	175.7	175.4	174.5	173.5	173.5	173.2
60°	149.0	148.4	147.1	146.8	146.8	145.3	144.7	143.4	143.4	142.2	140.9
62.5°	122.6	121.1	120.1	120.1	119.5	118.0	115.2	113.3	112.7	110.8	110.5
65°	97.8	96.2	95.3	93.4	91.9	91.3	88.5	86.3	85.4	83.5	83.8
67.5°	75.1	72.6	69.8	68.6	67.7	65.5	64.6	63.0	62.1	62.1	62.1
70°	54.0	51.8	49.0	48.1	47.5	45.6	44.7	44.4	45.3	45.0	45.3
72.5°	36.3	34.1	32.9	32.3	31.7	30.7	31.4	31.7	31.0	31.4	31.7
75°	22.0	21.4	20.5	20.2	20.2	20.5	20.2	20.2	20.5	20.5	20.8
77.5°	12.7	12.1	12.1	11.8	12.4	12.1	12.1	12.1	12.4	12.4	12.4
80°	6.8	6.8	6.8	6.8	7.1	6.8	7.1	7.1	7.1	7.1	7.1
82.5°	3.4	3.4	3.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.4
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3
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: LX4C20D010 EX4C209730 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	807.1	807.1	807.1	807.1	807.1	807.1	807.1	807.1
2.5°	801.5	801.5	801.5	800.9	801.2	801.2	800.9	800.9
5°	792.8	792.5	791.9	791.9	791.2	791.9	791.6	791.9
7.5°	781.0	781.0	780.1	780.1	779.8	779.5	779.1	779.5
10°	767.0	767.0	766.4	766.1	766.4	765.2	765.2	764.9
12.5°	751.5	750.9	750.3	750.6	750.3	749.3	749.0	749.3
15°	733.5	732.6	732.9	732.0	732.0	731.6	732.3	732.3
17.5°	713.6	713.0	712.4	712.7	712.1	712.4	712.1	711.8
20°	691.6	691.3	691.3	690.1	690.4	690.1	690.4	691.3
22.5°	666.2	665.8	666.2	665.2	665.8	665.8	666.8	666.8
25°	638.2	637.9	638.5	638.8	639.1	640.1	639.1	639.5
27.5°	607.2	608.1	609.0	609.3	610.6	609.7	609.0	610.0
30°	575.8	575.8	575.5	576.8	577.7	578.6	577.1	577.1
32.5°	539.8	541.4	541.4	541.7	542.6	542.6	542.6	543.8
35°	505.4	506.3	506.6	505.4	506.0	505.7	507.8	507.8
37.5°	466.9	466.9	467.2	469.3	469.3	468.4	469.0	469.0
40°	430.2	430.5	429.3	429.9	431.5	430.9	431.5	432.1
42.5°	390.2	392.4	391.1	391.7	391.4	391.7	392.1	392.1
45°	352.0	352.6	352.6	352.9	353.6	354.2	352.3	352.0
47.5°	314.8	315.1	316.0	314.5	316.3	314.5	316.3	314.1
50°	277.2	278.4	277.5	278.1	277.2	277.2	276.9	276.6
52.5°	241.5	241.2	241.2	240.9	240.9	241.5	240.9	241.8
55°	205.8	206.1	205.5	205.2	204.9	205.8	204.9	204.3
57.5°	172.0	172.6	171.3	172.0	169.8	170.7	171.0	171.3
60°	140.6	139.7	139.7	138.4	138.4	139.4	138.1	138.1
62.5°	109.0	109.6	108.6	109.9	109.9	111.1	110.5	111.1
65°	83.5	83.8	84.1	84.1	84.1	86.0	85.4	84.4
67.5°	63.0	63.3	63.6	63.3	64.3	63.6	63.6	63.9
70°	45.6	45.9	46.3	46.3	45.9	46.3	46.3	46.3
72.5°	31.7	32.0	31.7	32.0	32.3	32.0	32.0	32.3
75°	20.8	20.8	20.5	20.5	20.5	20.5	20.8	20.5
77.5°	12.1	12.4	12.1	12.4	12.4	12.4	12.4	12.4
80°	7.1	7.1	7.1	6.8	7.1	7.1	7.1	6.8
82.5°	3.7	3.7	3.4	3.4	3.7	3.7	3.7	3.7
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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)