

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: P856705

Luminaire Tested: **LX4C10D010 EX4C109027 4LBSWNH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P856705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C10D010 EX4C109027 4LBSWNH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

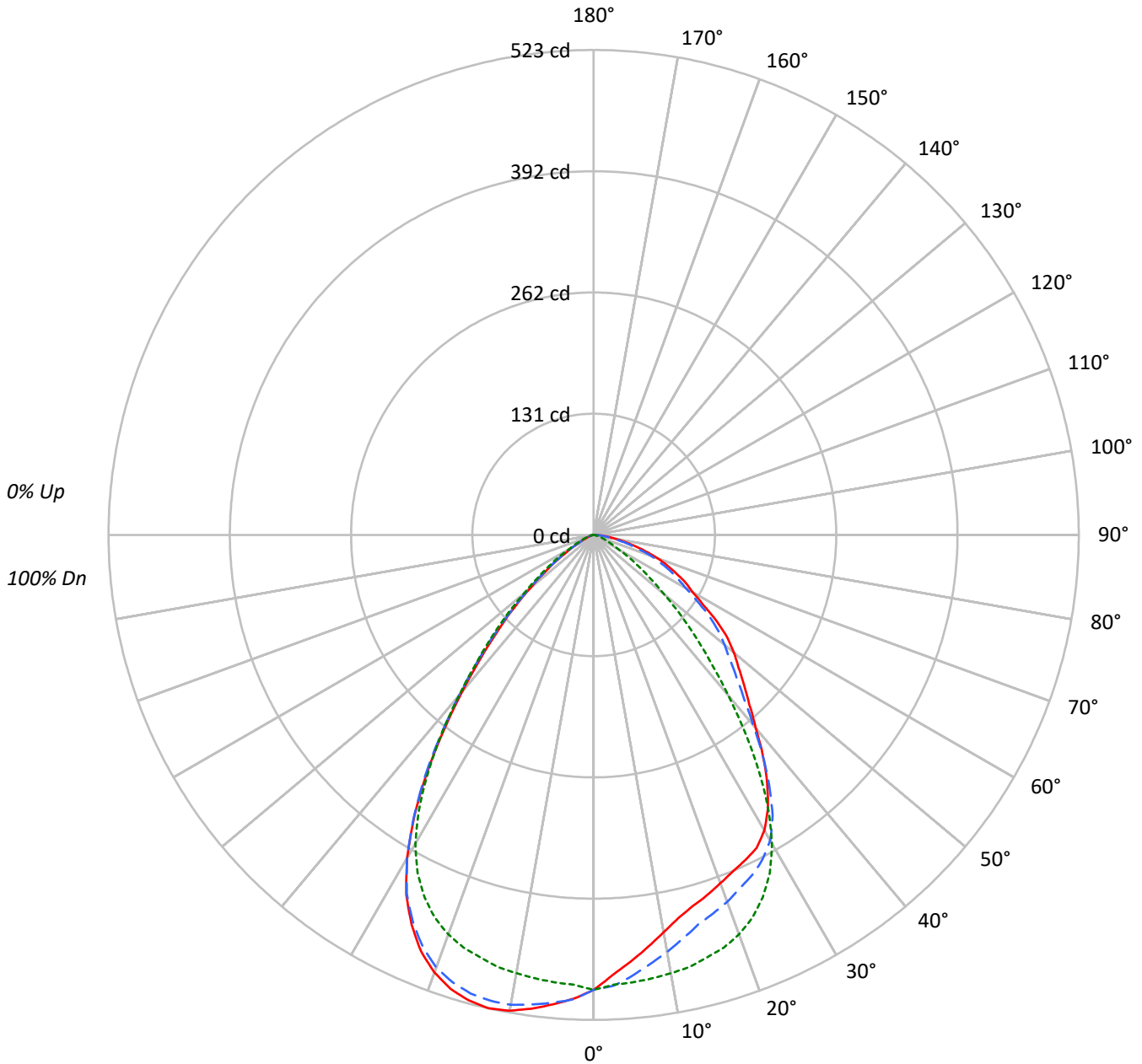
Lumens per Lamp: N/A
Luminaire Lumens: 860.0 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.8
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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																			
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70																			
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56																			
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50																			
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46																			
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38																			
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	60272	60272	60272
5°	56913	59725	62685
10°	54266	59867	64994
15°	52668	59994	66099
20°	52243	59930	65630
25°	52446	58451	62897
30°	52204	54531	57041
35°	48922	46553	47033
40°	43606	36100	35282
45°	39874	26912	25262
50°	37709	18845	17029
55°	34677	12723	10688
60°	30296	7445	5897
65°	28663	4767	3314
70°	26114	3412	2047
75°	21597	2421	1519
80°	16980	1344	920
85°	15224	846	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.4	5.4
10°-20°	133.0	15.5
20°-30°	197.1	22.9
30°-40°	197.4	23.0
40°-50°	138.0	16.0
50°-60°	82.1	9.5
60°-70°	42.8	5.0
70°-80°	19.1	2.2
80°-90°	4.1	0.5
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°	376.5	43.8
0°-40°	573.9	66.7
0°-60°	793.9	92.3
0°-90°	860.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	860.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	491	491	491	491	491	
5°	462	477	484	506	508	43
15°	414	435	472	512	520	117
25°	387	405	431	461	464	178
35°	326	330	310	316	314	202
45°	230	218	155	150	145	178
55°	162	152	59	52	50	144
65°	99	90	16	12	11	98
75°	46	40	5	3	3	49
85°	11	8	1	1	0	12
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°	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6
2.5°	474.8	480.5	474.8	476.7	484.3	477.3	481.1	481.1	479.2	483.7	486.8
5°	461.5	467.2	461.5	464.0	472.3	465.3	469.7	468.5	469.1	472.9	477.3
7.5°	448.3	452.7	447.6	450.8	458.4	452.7	456.5	456.5	457.1	462.8	466.6
10°	435.0	438.8	435.0	437.5	445.7	440.7	443.2	443.8	445.7	450.8	456.5
12.5°	423.0	426.1	422.3	426.1	433.1	428.0	431.2	431.8	433.7	439.4	445.7
15°	414.1	417.3	413.5	416.6	423.0	419.2	421.7	423.0	424.2	429.3	435.0
17.5°	407.2	409.7	406.5	410.3	415.4	411.0	414.8	414.8	416.6	421.7	428.0
20°	399.6	402.1	399.6	402.7	408.4	404.6	407.8	407.8	409.7	415.4	421.1
22.5°	392.6	393.9	392.6	395.2	400.8	397.7	399.6	400.2	402.1	407.2	412.2
25°	386.9	389.5	388.2	390.7	394.5	391.4	393.2	393.9	395.8	400.2	404.6
27.5°	380.6	381.9	380.6	383.8	386.9	384.4	386.3	385.7	386.9	390.7	394.5
30°	368.0	369.2	369.2	371.1	373.7	372.4	374.3	372.4	373.7	376.8	380.6
32.5°	349.6	350.3	350.9	352.8	354.7	352.8	354.1	354.1	354.1	356.6	359.1
35°	326.2	327.5	326.9	328.1	330.0	329.4	329.4	328.8	327.5	328.8	330.0
37.5°	299.7	297.8	297.8	299.7	300.9	298.4	299.7	298.4	298.4	299.0	299.0
40°	271.9	270.0	271.9	272.5	273.1	271.9	271.2	270.0	268.1	268.7	267.4
42.5°	248.5	247.2	247.8	247.8	248.5	247.2	247.8	245.3	243.4	242.1	240.3
45°	229.5	227.6	229.5	228.2	228.2	227.6	227.0	225.7	223.2	221.3	218.1
47.5°	211.8	211.8	212.4	212.4	212.4	211.2	211.2	208.6	206.1	203.6	199.2
50°	197.3	196.0	198.5	198.5	196.6	196.0	196.6	193.5	191.6	188.4	184.0
52.5°	181.4	181.4	182.1	182.1	181.4	180.2	180.8	178.3	176.4	173.2	168.8
55°	161.9	160.6	162.5	162.5	161.9	161.2	161.9	160.0	158.1	155.5	151.7
57.5°	139.7	139.1	140.3	141.0	139.7	139.7	140.3	138.5	137.8	135.3	131.5
60°	123.3	122.7	123.9	124.6	123.3	123.3	123.3	120.7	119.5	117.0	114.4
62.5°	111.9	111.3	112.5	111.9	111.3	110.6	111.3	108.8	107.5	105.0	102.4
65°	98.6	99.3	99.9	99.9	99.3	98.6	98.6	97.4	96.1	93.6	90.4
67.5°	86.0	86.0	86.6	87.2	86.6	86.6	86.6	84.7	83.4	81.6	77.8
70°	72.7	72.1	74.0	74.0	72.7	73.3	72.7	72.1	70.8	68.3	65.1
72.5°	58.8	58.8	59.4	59.4	58.8	58.8	58.8	58.2	56.3	55.0	51.8
75°	45.5	45.5	46.1	46.8	45.5	45.5	46.1	44.9	43.6	41.7	39.8
77.5°	34.2	33.5	34.2	34.2	33.5	33.5	33.5	32.9	32.2	30.3	28.5
80°	24.0	23.4	24.0	24.0	24.0	23.4	23.4	22.8	22.8	21.5	19.6
82.5°	16.4	15.8	16.4	16.4	16.4	15.8	15.8	15.8	15.2	14.5	13.3
85°	10.8	10.1	10.1	10.8	10.1	10.1	10.1	10.1	9.5	8.8	8.2
87.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	4.4	4.4	4.4	3.8
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°	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6
2.5°	484.3	483.0	486.8	485.6	486.2	483.0	488.1	485.6	488.7	485.6	491.9
5°	476.1	474.8	480.5	479.9	480.5	478.0	483.7	483.0	486.8	484.3	491.2
7.5°	467.2	466.0	472.3	472.9	474.2	471.7	479.2	479.2	483.0	482.4	490.0
10°	457.1	457.7	464.0	465.3	467.9	466.6	473.5	475.4	480.5	479.9	489.4
12.5°	447.6	447.6	455.8	458.4	460.3	459.6	467.9	470.4	476.1	477.3	486.2
15°	438.2	438.8	446.4	450.1	452.7	452.1	460.9	464.0	471.0	471.7	482.4
17.5°	430.5	429.9	438.2	441.3	445.1	444.5	453.9	457.7	464.7	466.6	476.7
20°	424.2	423.6	431.2	435.0	437.5	436.9	446.4	450.8	457.1	458.4	468.5
22.5°	416.6	415.4	423.0	426.1	428.7	428.0	436.2	439.4	445.7	447.0	456.5
25°	407.8	406.5	413.5	415.4	417.3	416.0	423.0	424.9	429.9	431.2	440.7
27.5°	397.7	394.5	400.2	400.2	401.5	399.6	404.6	406.5	411.0	411.0	419.8
30°	381.9	377.5	380.6	380.0	380.6	378.1	381.2	381.9	385.0	384.4	390.7
32.5°	359.7	353.4	355.3	353.4	351.5	347.7	351.5	350.3	352.8	350.3	355.9
35°	329.4	323.1	322.4	319.9	318.0	314.9	314.9	311.7	312.3	310.4	314.2
37.5°	296.5	288.3	287.0	282.0	278.8	275.0	275.0	272.5	269.3	268.1	271.2
40°	264.3	255.4	252.3	244.0	240.9	237.1	234.6	231.4	230.1	225.1	227.6
42.5°	236.5	227.0	220.0	211.2	208.0	202.3	198.5	194.7	192.8	187.1	189.7
45°	213.1	201.7	194.1	182.7	178.3	172.0	166.3	161.9	157.4	154.9	153.6
47.5°	193.5	181.4	171.3	158.7	151.7	146.1	138.5	134.0	128.4	125.2	123.3
50°	177.0	163.7	152.4	137.8	130.9	124.6	115.7	108.8	103.7	98.6	97.4
52.5°	162.5	148.6	135.9	119.5	111.3	103.7	94.2	86.6	82.2	76.5	75.9
55°	145.4	133.4	119.5	102.4	94.2	86.6	76.5	68.9	63.2	59.4	58.2
57.5°	127.1	115.7	102.4	85.4	77.1	68.9	59.4	52.5	47.4	44.3	43.6
60°	110.0	99.3	86.6	69.5	61.3	54.4	44.3	37.3	32.9	30.3	29.1
62.5°	97.4	87.2	75.2	59.4	51.8	44.9	35.4	29.1	25.3	22.8	21.5
65°	85.4	75.2	64.5	49.9	43.6	37.3	28.5	22.8	19.0	16.4	15.2
67.5°	72.7	63.9	53.7	41.7	35.4	30.3	22.8	17.7	14.5	12.6	11.4
70°	60.1	51.8	43.6	33.5	29.1	24.0	17.7	13.9	10.8	9.5	8.2
72.5°	47.4	41.1	34.2	25.9	22.1	19.0	13.9	10.1	8.2	7.0	5.7
75°	35.4	31.0	25.3	19.6	16.4	13.9	10.1	7.6	6.3	5.1	4.4
77.5°	25.3	21.5	17.7	13.3	12.0	10.1	7.0	5.7	4.4	3.2	2.5
80°	17.1	15.2	12.0	9.5	7.6	7.0	5.1	3.8	2.5	1.9	1.9
82.5°	11.4	9.5	7.6	5.7	5.1	4.4	3.2	2.5	1.9	1.3	1.3
85°	7.0	5.7	4.4	3.2	3.2	2.5	1.9	1.3	0.6	0.6	0.6
87.5°	3.2	2.5	1.9	1.3	1.3	0.6	0.6	0.6	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°	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6
2.5°	496.9	493.1	490.6	493.8	495.0	493.1	495.0	498.2	501.4	502.0	493.1
5°	497.6	493.8	492.5	496.3	496.9	496.3	498.2	502.6	506.4	507.7	498.8
7.5°	497.6	495.0	494.4	498.8	499.5	498.8	502.0	507.0	510.8	513.4	504.5
10°	496.3	495.0	495.7	499.5	500.7	500.7	505.2	510.8	514.6	517.2	508.3
12.5°	494.4	494.4	494.4	498.8	500.1	500.7	504.5	512.1	514.6	518.4	509.6
15°	491.2	491.2	491.2	495.7	497.6	497.6	502.0	509.0	512.1	515.9	507.0
17.5°	485.6	485.6	486.2	490.0	491.9	491.9	496.3	503.9	505.8	510.2	501.4
20°	477.3	477.3	478.0	481.8	483.7	482.4	488.1	494.4	496.3	500.1	491.2
22.5°	465.3	465.3	465.3	469.1	470.4	469.7	475.4	481.1	481.1	486.2	476.7
25°	447.6	448.9	447.6	451.4	452.7	452.1	457.1	462.2	460.9	466.6	457.1
27.5°	426.1	425.5	425.5	428.7	428.7	428.0	431.8	437.5	436.2	440.0	431.2
30°	396.4	398.3	395.2	399.6	397.7	396.4	398.9	404.0	402.1	405.3	398.3
32.5°	362.3	359.7	359.7	359.7	361.0	357.9	360.4	362.9	361.0	364.2	356.6
35°	317.4	318.0	316.1	316.8	317.4	313.6	316.1	318.6	316.1	318.0	311.1
37.5°	272.5	273.1	268.7	271.2	268.7	267.4	270.0	271.2	268.7	270.6	263.0
40°	227.6	226.3	225.7	225.7	226.3	223.2	225.1	227.0	225.1	226.3	219.4
42.5°	188.4	187.8	186.5	187.1	185.2	184.6	185.2	187.1	185.2	186.5	181.4
45°	154.3	153.0	151.1	151.7	151.7	148.6	150.5	151.7	149.8	150.5	146.1
47.5°	122.7	120.7	120.7	120.1	120.1	118.9	120.7	120.1	118.2	119.5	115.1
50°	95.5	94.2	94.2	94.2	94.2	92.3	92.9	94.2	92.3	92.3	89.8
52.5°	74.6	72.7	71.5	71.5	71.5	70.8	70.8	71.5	69.5	69.5	68.9
55°	56.3	55.6	53.7	53.7	53.7	51.8	52.5	52.5	51.8	51.8	49.9
57.5°	41.7	39.8	38.6	38.6	37.3	37.3	36.7	37.3	36.0	36.0	34.8
60°	27.8	26.5	25.9	25.3	25.3	24.7	25.3	24.7	24.7	24.0	23.4
62.5°	20.2	19.0	17.7	17.7	17.7	17.1	17.1	17.1	17.1	17.1	16.4
65°	14.5	13.3	13.3	12.6	12.6	12.0	12.0	12.0	12.0	12.0	11.4
67.5°	10.1	9.5	8.8	8.8	8.8	8.8	8.8	8.8	8.2	8.2	8.2
70°	7.6	7.0	6.3	6.3	6.3	6.3	6.3	5.7	6.3	6.3	5.7
72.5°	5.1	5.1	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
75°	3.8	3.8	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	2.5	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
82.5°	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	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: P856705

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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	490.6	490.6	490.6	490.6	490.6	490.6	490.6	490.6
2.5°	502.6	502.0	500.7	502.6	497.6	495.7	495.0	500.7
5°	509.6	508.3	508.3	510.2	504.5	503.3	502.0	508.3
7.5°	515.9	514.6	514.6	516.5	511.5	510.2	509.0	515.3
10°	519.7	519.7	519.7	521.0	516.5	515.3	514.6	521.0
12.5°	521.6	521.6	521.0	523.5	517.8	517.8	516.5	522.9
15°	519.1	519.1	519.1	521.0	515.9	514.6	514.6	519.7
17.5°	512.7	512.7	512.1	514.0	508.3	508.3	507.7	513.4
20°	503.3	503.3	502.0	504.5	498.8	496.9	496.3	502.0
22.5°	488.1	487.4	486.8	488.1	483.0	481.8	481.1	486.2
25°	468.5	467.9	466.6	467.9	462.2	460.3	460.3	464.0
27.5°	440.7	440.7	438.8	440.7	434.3	433.7	433.1	437.5
30°	406.5	404.0	402.7	405.3	398.9	398.9	397.7	402.1
32.5°	364.2	361.6	361.0	362.3	356.6	354.7	357.2	359.7
35°	315.5	316.1	313.6	313.6	308.5	309.2	309.8	313.6
37.5°	268.7	267.4	266.8	267.4	263.6	262.4	261.1	264.9
40°	225.1	221.9	221.3	221.3	218.1	217.5	218.1	220.0
42.5°	184.0	183.3	180.8	182.1	178.9	180.2	179.6	179.6
45°	148.6	149.2	146.7	148.6	146.1	144.1	144.1	145.4
47.5°	117.6	117.6	117.0	117.0	115.1	115.7	114.4	116.3
50°	91.0	91.0	89.8	90.4	89.1	89.1	88.5	89.1
52.5°	69.5	68.9	68.9	68.3	67.0	67.7	68.3	67.0
55°	50.6	51.2	49.9	50.6	49.3	49.9	49.3	49.9
57.5°	34.8	35.4	34.2	35.4	34.2	34.8	34.2	34.2
60°	24.0	24.0	23.4	24.0	23.4	23.4	22.8	24.0
62.5°	16.4	16.4	16.4	16.4	16.4	15.8	16.4	16.4
65°	12.0	11.4	11.4	11.4	11.4	11.4	11.4	11.4
67.5°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
70°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
72.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
75°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.0	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
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)