

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: P859658

Luminaire Tested: **LX4C08D010 EX4C089030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P859658
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: LX4C08D010 EX4C089030 4LBSWNH
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

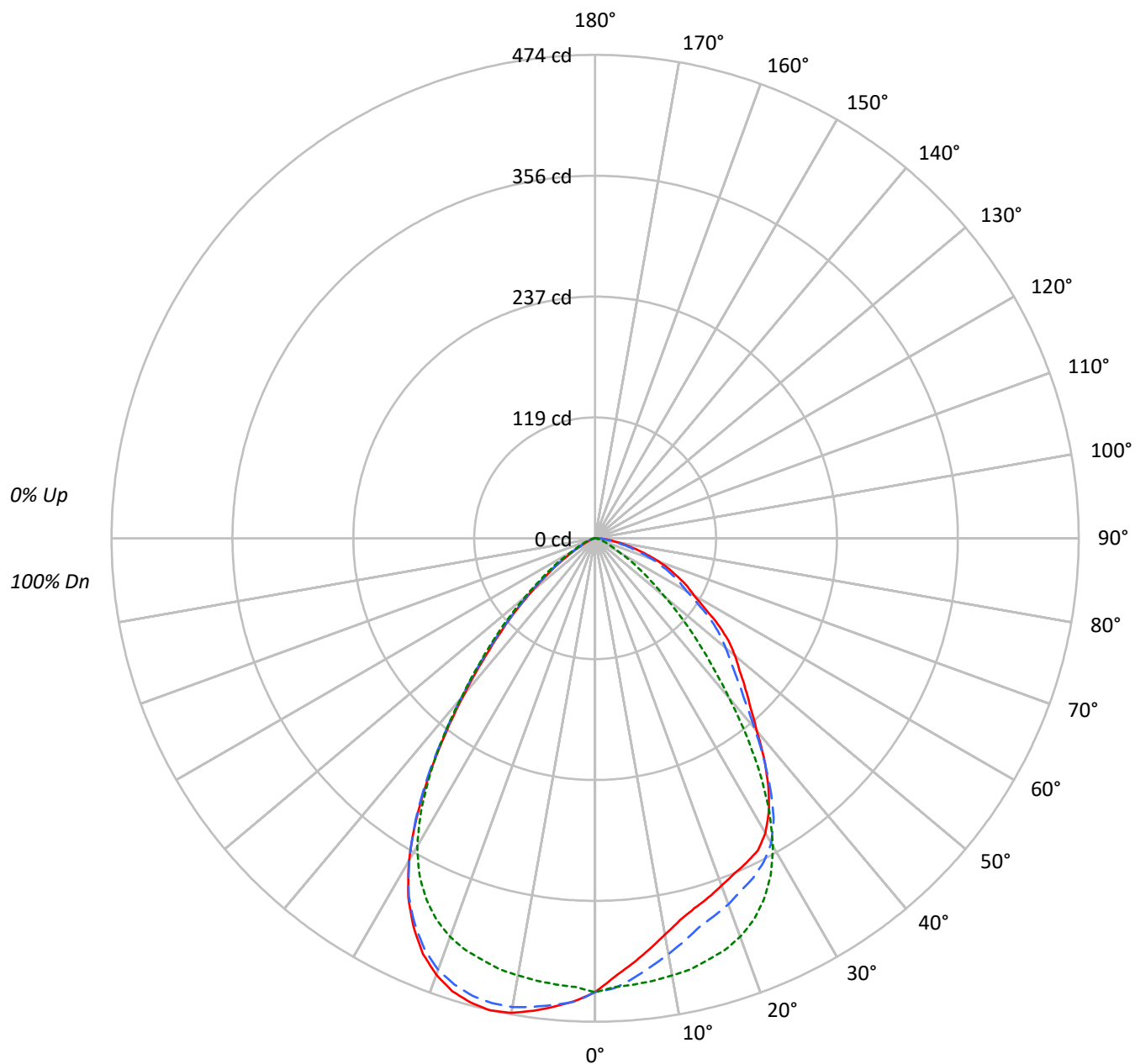
Lumens per Lamp: N/A
Luminaire Lumens: 780.0 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	54670	54670	54670
5°	51623	54163	56852
10°	49213	54291	58944
15°	47772	54411	59943
20°	47379	54348	59525
25°	47566	53015	57055
30°	47338	49452	51736
35°	44378	42233	42653
40°	39548	32732	32011
45°	36156	24411	22916
50°	34192	17106	15462
55°	31443	11545	9703
60°	27470	6757	5356
65°	26017	4331	2994
70°	23707	3089	1868
75°	19604	2183	1377
80°	15423	1203	778
85°	13814	846	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	5.4
10°-20°	120.6	15.5
20°-30°	178.8	22.9
30°-40°	179.0	23.0
40°-50°	125.1	16.0
50°-60°	74.5	9.5
60°-70°	38.9	5.0
70°-80°	17.3	2.2
80°-90°	3.8	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°	341.5	43.8
0°-40°	520.5	66.7
0°-60°	720.1	92.3
0°-90°	780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	780.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	445	445	445	445	445	
5°	419	433	439	459	461	39
15°	376	394	428	464	471	106
25°	351	367	391	418	421	162
35°	296	299	282	287	284	183
45°	208	198	140	136	132	162
55°	147	138	54	47	45	130
65°	90	82	15	11	10	89
75°	41	36	5	3	3	45
85°	10	8	1	1	0	11
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°	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0
2.5°	430.6	435.8	430.6	432.4	439.2	432.9	436.4	436.4	434.7	438.7	441.5
5°	418.6	423.8	418.6	420.9	428.3	422.0	426.1	424.9	425.5	428.9	432.9
7.5°	406.6	410.6	406.0	408.9	415.7	410.6	414.0	414.0	414.6	419.7	423.2
10°	394.5	398.0	394.5	396.8	404.3	399.7	402.0	402.5	404.3	408.9	414.0
12.5°	383.6	386.5	383.1	386.5	392.8	388.2	391.1	391.6	393.4	398.5	404.3
15°	375.6	378.5	375.0	377.9	383.6	380.2	382.5	383.6	384.8	389.3	394.5
17.5°	369.3	371.6	368.7	372.1	376.7	372.7	376.2	376.2	377.9	382.5	388.2
20°	362.4	364.7	362.4	365.3	370.4	367.0	369.9	369.9	371.6	376.7	381.9
22.5°	356.1	357.2	356.1	358.4	363.5	360.7	362.4	363.0	364.7	369.3	373.9
25°	350.9	353.2	352.1	354.4	357.8	355.0	356.7	357.2	359.0	363.0	367.0
27.5°	345.2	346.3	345.2	348.1	350.9	348.6	350.4	349.8	350.9	354.4	357.8
30°	333.7	334.9	334.9	336.6	338.9	337.8	339.5	337.8	338.9	341.8	345.2
32.5°	317.1	317.7	318.2	320.0	321.7	320.0	321.1	321.1	321.1	323.4	325.7
35°	295.9	297.0	296.5	297.6	299.3	298.8	298.8	298.2	297.0	298.2	299.3
37.5°	271.8	270.1	270.1	271.8	273.0	270.7	271.8	270.7	270.7	271.2	271.2
40°	246.6	244.9	246.6	247.1	247.7	246.6	246.0	244.9	243.1	243.7	242.6
42.5°	225.4	224.2	224.8	224.8	225.4	224.2	224.8	222.5	220.8	219.6	217.9
45°	208.1	206.4	208.1	207.0	207.0	206.4	205.9	204.7	202.4	200.7	197.8
47.5°	192.1	192.1	192.7	192.7	192.7	191.5	191.5	189.2	186.9	184.6	180.6
50°	178.9	177.8	180.1	180.1	178.3	177.8	178.3	175.5	173.8	170.9	166.9
52.5°	164.6	164.6	165.1	165.1	164.6	163.4	164.0	161.7	160.0	157.1	153.1
55°	146.8	145.7	147.4	147.4	146.8	146.2	146.8	145.1	143.4	141.1	137.6
57.5°	126.7	126.1	127.3	127.9	126.7	126.7	127.3	125.6	125.0	122.7	119.3
60°	111.8	111.2	112.4	113.0	111.8	111.8	111.8	109.5	108.4	106.1	103.8
62.5°	101.5	100.9	102.1	101.5	100.9	100.3	100.9	98.6	97.5	95.2	92.9
65°	89.5	90.0	90.6	90.6	90.0	89.5	89.5	88.3	87.2	84.9	82.0
67.5°	78.0	78.0	78.6	79.1	78.6	78.6	78.6	76.8	75.7	74.0	70.5
70°	66.0	65.4	67.1	67.1	66.0	66.5	66.0	65.4	64.2	61.9	59.1
72.5°	53.3	53.3	53.9	53.9	53.3	53.3	53.3	52.8	51.0	49.9	47.0
75°	41.3	41.3	41.9	42.4	41.3	41.3	41.9	40.7	39.6	37.9	36.1
77.5°	31.0	30.4	31.0	31.0	30.4	30.4	30.4	29.8	29.2	27.5	25.8
80°	21.8	21.2	21.8	21.8	21.8	21.2	21.2	20.6	20.6	19.5	17.8
82.5°	14.9	14.3	14.9	14.9	14.9	14.3	14.3	14.3	13.8	13.2	12.0
85°	9.8	9.2	9.2	9.8	9.2	9.2	9.2	9.2	8.6	8.0	7.5
87.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.0	4.0	4.0	3.4
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°	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0
2.5°	439.2	438.1	441.5	440.4	441.0	438.1	442.7	440.4	443.2	440.4	446.1
5°	431.8	430.6	435.8	435.2	435.8	433.5	438.7	438.1	441.5	439.2	445.5
7.5°	423.8	422.6	428.3	428.9	430.1	427.8	434.7	434.7	438.1	437.5	444.4
10°	414.6	415.1	420.9	422.0	424.3	423.2	429.5	431.2	435.8	435.2	443.8
12.5°	406.0	406.0	413.4	415.7	417.4	416.9	424.3	426.6	431.8	432.9	441.0
15°	397.4	398.0	404.8	408.3	410.6	410.0	418.0	420.9	427.2	427.8	437.5
17.5°	390.5	389.9	397.4	400.2	403.7	403.1	411.7	415.1	421.5	423.2	432.4
20°	384.8	384.2	391.1	394.5	396.8	396.2	404.8	408.9	414.6	415.7	424.9
22.5°	377.9	376.7	383.6	386.5	388.8	388.2	395.7	398.5	404.3	405.4	414.0
25°	369.9	368.7	375.0	376.7	378.5	377.3	383.6	385.3	389.9	391.1	399.7
27.5°	360.7	357.8	363.0	363.0	364.1	362.4	367.0	368.7	372.7	372.7	380.8
30°	346.3	342.3	345.2	344.6	345.2	342.9	345.8	346.3	349.2	348.6	354.4
32.5°	326.3	320.5	322.3	320.5	318.8	315.4	318.8	317.7	320.0	317.7	322.8
35°	298.8	293.0	292.4	290.1	288.4	285.6	285.6	282.7	283.3	281.6	285.0
37.5°	268.9	261.5	260.3	255.8	252.9	249.4	249.4	247.1	244.3	243.1	246.0
40°	239.7	231.7	228.8	221.3	218.5	215.0	212.7	209.9	208.7	204.1	206.4
42.5°	214.5	205.9	199.6	191.5	188.7	183.5	180.1	176.6	174.9	169.7	172.0
45°	193.2	182.9	176.0	165.7	161.7	156.0	150.8	146.8	142.8	140.5	139.3
47.5°	175.5	164.6	155.4	143.9	137.6	132.5	125.6	121.6	116.4	113.5	111.8
50°	160.6	148.5	138.2	125.0	118.7	113.0	104.9	98.6	94.0	89.5	88.3
52.5°	147.4	134.8	123.3	108.4	100.9	94.0	85.4	78.6	74.5	69.4	68.8
55°	131.9	121.0	108.4	92.9	85.4	78.6	69.4	62.5	57.3	53.9	52.8
57.5°	115.3	104.9	92.9	77.4	70.0	62.5	53.9	47.6	43.0	40.1	39.6
60°	99.8	90.0	78.6	63.1	55.6	49.3	40.1	33.8	29.8	27.5	26.4
62.5°	88.3	79.1	68.2	53.9	47.0	40.7	32.1	26.4	22.9	20.6	19.5
65°	77.4	68.2	58.5	45.3	39.6	33.8	25.8	20.6	17.2	14.9	13.8
67.5°	66.0	57.9	48.7	37.9	32.1	27.5	20.6	16.0	13.2	11.5	10.3
70°	54.5	47.0	39.6	30.4	26.4	21.8	16.0	12.6	9.8	8.6	7.5
72.5°	43.0	37.3	31.0	23.5	20.1	17.2	12.6	9.2	7.5	6.3	5.2
75°	32.1	28.1	22.9	17.8	14.9	12.6	9.2	6.9	5.7	4.6	4.0
77.5°	22.9	19.5	16.0	12.0	10.9	9.2	6.3	5.2	4.0	2.9	2.3
80°	15.5	13.8	10.9	8.6	6.9	6.3	4.6	3.4	2.3	1.7	1.7
82.5°	10.3	8.6	6.9	5.2	4.6	4.0	2.9	2.3	1.7	1.1	1.1
85°	6.3	5.2	4.0	2.9	2.9	2.3	1.7	1.1	0.6	0.6	0.6
87.5°	2.9	2.3	1.7	1.1	1.1	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°	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0
2.5°	450.7	447.3	445.0	447.8	449.0	447.3	449.0	451.9	454.7	455.3	447.3
5°	451.3	447.8	446.7	450.1	450.7	450.1	451.9	455.9	459.3	460.5	452.4
7.5°	451.3	449.0	448.4	452.4	453.0	452.4	455.3	459.9	463.3	465.6	457.6
10°	450.1	449.0	449.6	453.0	454.1	454.1	458.2	463.3	466.8	469.1	461.0
12.5°	448.4	448.4	448.4	452.4	453.6	454.1	457.6	464.5	466.8	470.2	462.2
15°	445.5	445.5	445.5	449.6	451.3	451.3	455.3	461.6	464.5	467.9	459.9
17.5°	440.4	440.4	441.0	444.4	446.1	446.1	450.1	457.0	458.7	462.8	454.7
20°	432.9	432.9	433.5	437.0	438.7	437.5	442.7	448.4	450.1	453.6	445.5
22.5°	422.0	422.0	422.0	425.5	426.6	426.1	431.2	436.4	436.4	441.0	432.4
25°	406.0	407.1	406.0	409.4	410.6	410.0	414.6	419.2	418.0	423.2	414.6
27.5°	386.5	385.9	385.9	388.8	388.8	388.2	391.6	396.8	395.7	399.1	391.1
30°	359.5	361.2	358.4	362.4	360.7	359.5	361.8	366.4	364.7	367.6	361.2
32.5°	328.6	326.3	326.3	326.3	327.4	324.6	326.9	329.1	327.4	330.3	323.4
35°	287.9	288.4	286.7	287.3	287.9	284.4	286.7	289.0	286.7	288.4	282.1
37.5°	247.1	247.7	243.7	246.0	243.7	242.6	244.9	246.0	243.7	245.4	238.5
40°	206.4	205.3	204.7	204.7	205.3	202.4	204.1	205.9	204.1	205.3	199.0
42.5°	170.9	170.3	169.2	169.7	168.0	167.4	168.0	169.7	168.0	169.2	164.6
45°	139.9	138.8	137.0	137.6	137.6	134.8	136.5	137.6	135.9	136.5	132.5
47.5°	111.2	109.5	109.5	109.0	109.0	107.8	109.5	109.0	107.2	108.4	104.4
50°	86.6	85.4	85.4	85.4	85.4	83.7	84.3	85.4	83.7	83.7	81.4
52.5°	67.7	66.0	64.8	64.8	64.8	64.2	64.2	64.8	63.1	63.1	62.5
55°	51.0	50.5	48.7	48.7	48.7	47.0	47.6	47.6	47.0	47.0	45.3
57.5°	37.9	36.1	35.0	35.0	33.8	33.8	33.3	33.8	32.7	32.7	31.5
60°	25.2	24.1	23.5	22.9	22.9	22.4	22.9	22.4	22.4	21.8	21.2
62.5°	18.3	17.2	16.0	16.0	16.0	15.5	15.5	15.5	15.5	15.5	14.9
65°	13.2	12.0	12.0	11.5	11.5	10.9	10.9	10.9	10.9	10.9	10.3
67.5°	9.2	8.6	8.0	8.0	8.0	8.0	8.0	8.0	7.5	7.5	7.5
70°	6.9	6.3	5.7	5.7	5.7	5.7	5.7	5.2	5.7	5.7	5.2
72.5°	4.6	4.6	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	3.4	3.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
77.5°	2.3	2.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	0.6	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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	445.0	445.0	445.0	445.0	445.0	445.0	445.0	445.0
2.5°	455.9	455.3	454.1	455.9	451.3	449.6	449.0	454.1
5°	462.2	461.0	461.0	462.8	457.6	456.4	455.3	461.0
7.5°	467.9	466.8	466.8	468.5	463.9	462.8	461.6	467.3
10°	471.3	471.3	471.3	472.5	468.5	467.3	466.8	472.5
12.5°	473.1	473.1	472.5	474.8	469.6	469.6	468.5	474.2
15°	470.8	470.8	470.8	472.5	467.9	466.8	466.8	471.3
17.5°	465.1	465.1	464.5	466.2	461.0	461.0	460.5	465.6
20°	456.4	456.4	455.3	457.6	452.4	450.7	450.1	455.3
22.5°	442.7	442.1	441.5	442.7	438.1	437.0	436.4	441.0
25°	424.9	424.3	423.2	424.3	419.2	417.4	417.4	420.9
27.5°	399.7	399.7	398.0	399.7	393.9	393.4	392.8	396.8
30°	368.7	366.4	365.3	367.6	361.8	361.8	360.7	364.7
32.5°	330.3	328.0	327.4	328.6	323.4	321.7	324.0	326.3
35°	286.1	286.7	284.4	284.4	279.8	280.4	281.0	284.4
37.5°	243.7	242.6	242.0	242.6	239.1	238.0	236.8	240.3
40°	204.1	201.3	200.7	200.7	197.8	197.3	197.8	199.6
42.5°	166.9	166.3	164.0	165.1	162.3	163.4	162.9	162.9
45°	134.8	135.3	133.0	134.8	132.5	130.7	130.7	131.9
47.5°	106.7	106.7	106.1	106.1	104.4	104.9	103.8	105.5
50°	82.6	82.6	81.4	82.0	80.9	80.9	80.3	80.9
52.5°	63.1	62.5	62.5	61.9	60.8	61.4	61.9	60.8
55°	45.9	46.4	45.3	45.9	44.7	45.3	44.7	45.3
57.5°	31.5	32.1	31.0	32.1	31.0	31.5	31.0	31.0
60°	21.8	21.8	21.2	21.8	21.2	21.2	20.6	21.8
62.5°	14.9	14.9	14.9	14.9	14.9	14.3	14.9	14.9
65°	10.9	10.3	10.3	10.3	10.3	10.3	10.3	10.3
67.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
70°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)