

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: P856798

Luminaire Tested: **LX4C10D010 EX4C109050 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P856798
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 EX4C109050 4LBSWNH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

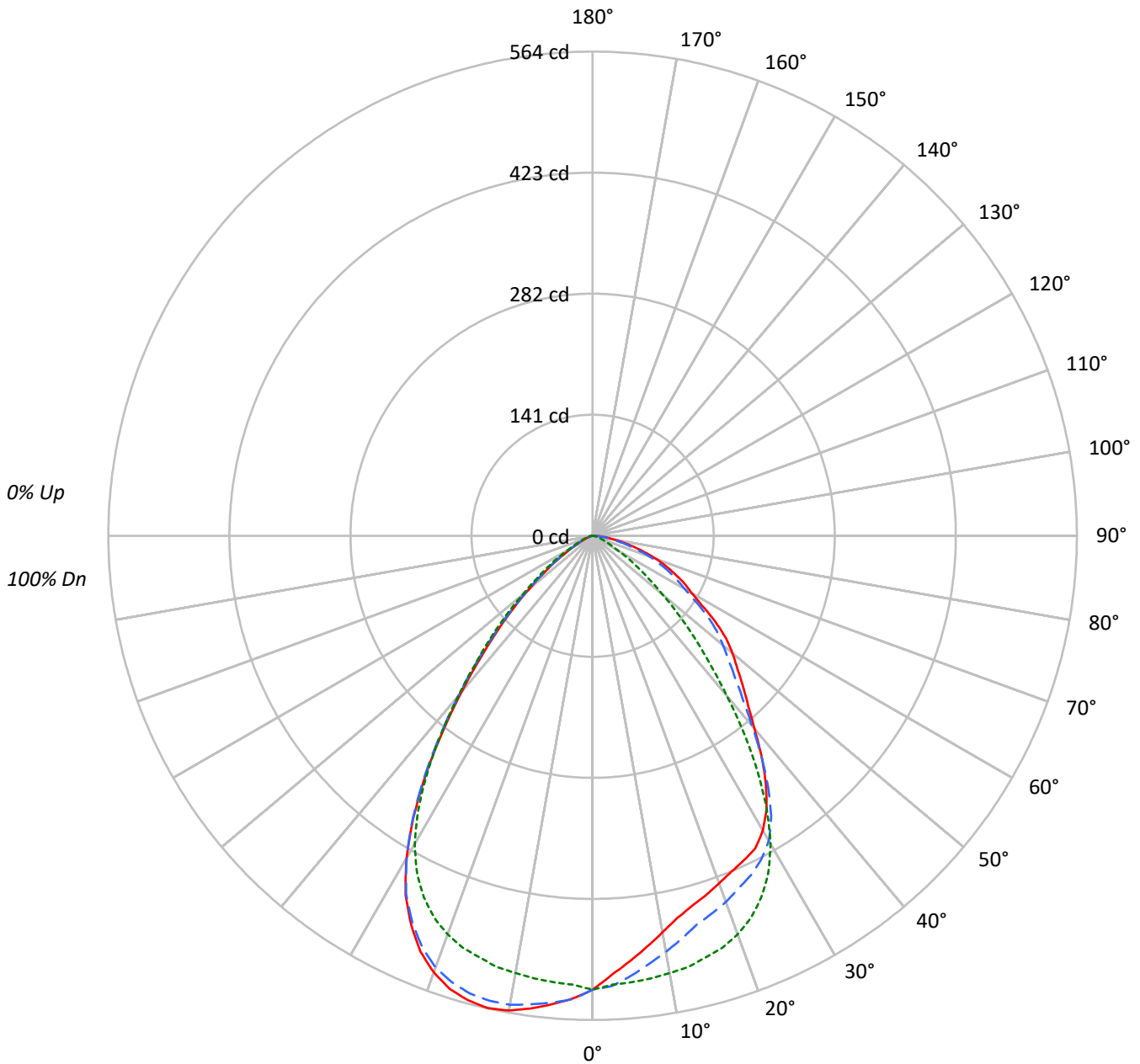
Lumens per Lamp: N/A
Luminaire Lumens: 927.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	64965	64965	64965
5°	61353	64374	67569
10°	58495	64520	70046
15°	56776	64662	71250
20°	56309	64598	70742
25°	56539	63005	67804
30°	56261	58772	61482
35°	52732	50182	50692
40°	46990	38907	38041
45°	42984	29015	27225
50°	40633	20317	18367
55°	37376	13729	11523
60°	32654	8035	6364
65°	30901	5145	3576
70°	28161	3664	2191
75°	23306	2563	1614
80°	18324	1486	990
85°	16351	987	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	5.4
10°-20°	143.3	15.5
20°-30°	212.5	22.9
30°-40°	212.8	23.0
40°-50°	148.7	16.0
50°-60°	88.5	9.5
60°-70°	46.2	5.0
70°-80°	20.5	2.2
80°-90°	4.5	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°	405.8	43.8
0°-40°	618.6	66.7
0°-60°	855.8	92.3
0°-90°	927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	927.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	529	529	529	529	529	
5°	498	514	522	546	548	47
15°	446	469	508	552	560	126
25°	417	436	465	497	500	192
35°	352	356	335	341	338	218
45°	247	235	167	162	157	192
55°	174	164	64	56	54	155
65°	106	98	18	13	12	105
75°	49	43	5	3	3	53
85°	12	9	1	1	0	13
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°	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8
2.5°	511.8	517.9	511.8	513.9	522.0	514.5	518.6	518.6	516.6	521.3	524.8
5°	497.5	503.6	497.5	500.2	509.1	501.6	506.3	505.0	505.7	509.8	514.5
7.5°	483.2	487.9	482.5	485.9	494.1	487.9	492.0	492.0	492.7	498.8	503.0
10°	468.9	473.0	468.9	471.6	480.5	475.0	477.7	478.4	480.5	485.9	492.0
12.5°	455.9	459.3	455.2	459.3	466.8	461.4	464.8	465.4	467.5	473.6	480.5
15°	446.4	449.8	445.7	449.1	455.9	451.8	454.5	455.9	457.3	462.7	468.9
17.5°	438.9	441.6	438.2	442.3	447.7	443.0	447.1	447.1	449.1	454.5	461.4
20°	430.7	433.4	430.7	434.1	440.3	436.2	439.6	439.6	441.6	447.7	453.9
22.5°	423.2	424.6	423.2	425.9	432.1	428.7	430.7	431.4	433.4	438.9	444.3
25°	417.1	419.8	418.4	421.2	425.2	421.8	423.9	424.6	426.6	431.4	436.2
27.5°	410.3	411.6	410.3	413.7	417.1	414.3	416.4	415.7	417.1	421.2	425.2
30°	396.6	398.0	398.0	400.0	402.8	401.4	403.4	401.4	402.8	406.2	410.3
32.5°	376.9	377.6	378.2	380.3	382.3	380.3	381.6	381.6	381.6	384.4	387.1
35°	351.6	353.0	352.3	353.7	355.7	355.1	355.1	354.4	353.0	354.4	355.7
37.5°	323.0	321.0	321.0	323.0	324.4	321.7	323.0	321.7	321.7	322.3	322.3
40°	293.0	291.0	293.0	293.7	294.4	293.0	292.4	291.0	288.9	289.6	288.3
42.5°	267.8	266.5	267.1	267.1	267.8	266.5	267.1	264.4	262.4	261.0	259.0
45°	247.4	245.3	247.4	246.0	246.0	245.3	244.7	243.3	240.6	238.5	235.1
47.5°	228.3	228.3	229.0	229.0	229.0	227.6	227.6	224.9	222.2	219.4	214.7
50°	212.6	211.3	214.0	214.0	212.0	211.3	212.0	208.5	206.5	203.1	198.3
52.5°	195.6	195.6	196.3	196.3	195.6	194.2	194.9	192.2	190.1	186.7	182.0
55°	174.5	173.1	175.1	175.1	174.5	173.8	174.5	172.4	170.4	167.7	163.5
57.5°	150.6	149.9	151.3	152.0	150.6	150.6	151.3	149.3	148.6	145.8	141.7
60°	132.9	132.2	133.6	134.3	132.9	132.9	132.9	130.2	128.8	126.1	123.3
62.5°	120.6	119.9	121.3	120.6	119.9	119.3	119.9	117.2	115.9	113.1	110.4
65°	106.3	107.0	107.7	107.7	107.0	106.3	106.3	105.0	103.6	100.9	97.5
67.5°	92.7	92.7	93.4	94.0	93.4	93.4	93.4	91.3	89.9	87.9	83.8
70°	78.4	77.7	79.7	79.7	78.4	79.0	78.4	77.7	76.3	73.6	70.2
72.5°	63.4	63.4	64.1	64.1	63.4	63.4	63.4	62.7	60.6	59.3	55.9
75°	49.1	49.1	49.7	50.4	49.1	49.1	49.7	48.4	47.0	45.0	42.9
77.5°	36.8	36.1	36.8	36.8	36.1	36.1	36.1	35.5	34.8	32.7	30.7
80°	25.9	25.2	25.9	25.9	25.9	25.2	25.2	24.5	24.5	23.2	21.1
82.5°	17.7	17.0	17.7	17.7	17.7	17.0	17.0	17.0	16.3	15.7	14.3
85°	11.6	10.9	10.9	11.6	10.9	10.9	10.9	10.9	10.2	9.5	8.9
87.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	4.8	4.8	4.8	4.1
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°	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8
2.5°	522.0	520.7	524.8	523.4	524.1	520.7	526.1	523.4	526.8	523.4	530.2
5°	513.2	511.8	517.9	517.2	517.9	515.2	521.3	520.7	524.8	522.0	529.5
7.5°	503.6	502.3	509.1	509.8	511.1	508.4	516.6	516.6	520.7	520.0	528.1
10°	492.7	493.4	500.2	501.6	504.3	503.0	510.4	512.5	517.9	517.2	527.5
12.5°	482.5	482.5	491.4	494.1	496.1	495.4	504.3	507.0	513.2	514.5	524.1
15°	472.3	473.0	481.1	485.2	487.9	487.3	496.8	500.2	507.7	508.4	520.0
17.5°	464.1	463.4	472.3	475.7	479.8	479.1	489.3	493.4	500.9	503.0	513.9
20°	457.3	456.6	464.8	468.9	471.6	470.9	481.1	485.9	492.7	494.1	505.0
22.5°	449.1	447.7	455.9	459.3	462.1	461.4	470.2	473.6	480.5	481.8	492.0
25°	439.6	438.2	445.7	447.7	449.8	448.4	455.9	458.0	463.4	464.8	475.0
27.5°	428.7	425.2	431.4	431.4	432.7	430.7	436.2	438.2	443.0	443.0	452.5
30°	411.6	406.9	410.3	409.6	410.3	407.5	410.9	411.6	415.0	414.3	421.2
32.5°	387.8	380.9	383.0	380.9	378.9	374.8	378.9	377.6	380.3	377.6	383.7
35°	355.1	348.2	347.6	344.8	342.8	339.4	339.4	336.0	336.7	334.6	338.7
37.5°	319.6	310.8	309.4	304.0	300.5	296.5	296.5	293.7	290.3	288.9	292.4
40°	284.9	275.3	271.9	263.1	259.6	255.6	252.8	249.4	248.1	242.6	245.3
42.5°	254.9	244.7	237.2	227.6	224.2	218.1	214.0	209.9	207.9	201.7	204.4
45°	229.7	217.4	209.2	196.9	192.2	185.4	179.2	174.5	169.7	167.0	165.6
47.5°	208.5	195.6	184.7	171.1	163.5	157.4	149.3	144.5	138.4	134.9	132.9
50°	190.8	176.5	164.2	148.6	141.1	134.3	124.7	117.2	111.8	106.3	105.0
52.5°	175.1	160.2	146.5	128.8	119.9	111.8	101.5	93.4	88.6	82.5	81.8
55°	156.7	143.8	128.8	110.4	101.5	93.4	82.5	74.3	68.1	64.1	62.7
57.5°	137.0	124.7	110.4	92.0	83.1	74.3	64.1	56.6	51.1	47.7	47.0
60°	118.6	107.0	93.4	75.0	66.1	58.6	47.7	40.2	35.5	32.7	31.3
62.5°	105.0	94.0	81.1	64.1	55.9	48.4	38.2	31.3	27.2	24.5	23.2
65°	92.0	81.1	69.5	53.8	47.0	40.2	30.7	24.5	20.4	17.7	16.3
67.5°	78.4	68.8	57.9	45.0	38.2	32.7	24.5	19.1	15.7	13.6	12.3
70°	64.7	55.9	47.0	36.1	31.3	25.9	19.1	15.0	11.6	10.2	8.9
72.5°	51.1	44.3	36.8	27.9	23.9	20.4	15.0	10.9	8.9	7.5	6.1
75°	38.2	33.4	27.2	21.1	17.7	15.0	10.9	8.2	6.8	5.4	4.8
77.5°	27.2	23.2	19.1	14.3	13.0	10.9	7.5	6.1	4.8	3.4	2.7
80°	18.4	16.3	13.0	10.2	8.2	7.5	5.4	4.1	2.7	2.1	2.1
82.5°	12.3	10.2	8.2	6.1	5.4	4.8	3.4	2.7	2.1	1.4	1.4
85°	7.5	6.1	4.8	3.4	3.4	2.7	2.1	1.4	0.7	0.7	0.7
87.5°	3.4	2.7	2.1	1.4	1.4	0.7	0.7	0.7	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°	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8
2.5°	535.7	531.6	528.8	532.2	533.6	531.6	533.6	537.0	540.4	541.1	531.6
5°	536.3	532.2	530.9	535.0	535.7	535.0	537.0	541.8	545.9	547.2	537.7
7.5°	536.3	533.6	532.9	537.7	538.4	537.7	541.1	546.6	550.6	553.4	543.8
10°	535.0	533.6	534.3	538.4	539.7	539.7	544.5	550.6	554.7	557.5	547.9
12.5°	532.9	532.9	532.9	537.7	539.1	539.7	543.8	552.0	554.7	558.8	549.3
15°	529.5	529.5	529.5	534.3	536.3	536.3	541.1	548.6	552.0	556.1	546.6
17.5°	523.4	523.4	524.1	528.1	530.2	530.2	535.0	543.2	545.2	550.0	540.4
20°	514.5	514.5	515.2	519.3	521.3	520.0	526.1	532.9	535.0	539.1	529.5
22.5°	501.6	501.6	501.6	505.7	507.0	506.3	512.5	518.6	518.6	524.1	513.9
25°	482.5	483.9	482.5	486.6	487.9	487.3	492.7	498.2	496.8	503.0	492.7
27.5°	459.3	458.6	458.6	462.1	462.1	461.4	465.4	471.6	470.2	474.3	464.8
30°	427.3	429.3	425.9	430.7	428.7	427.3	430.0	435.5	433.4	436.8	429.3
32.5°	390.5	387.8	387.8	387.8	389.1	385.7	388.5	391.2	389.1	392.5	384.4
35°	342.1	342.8	340.7	341.4	342.1	338.0	340.7	343.5	340.7	342.8	335.3
37.5°	293.7	294.4	289.6	292.4	289.6	288.3	291.0	292.4	289.6	291.7	283.5
40°	245.3	244.0	243.3	243.3	244.0	240.6	242.6	244.7	242.6	244.0	236.5
42.5°	203.1	202.4	201.1	201.7	199.7	199.0	199.7	201.7	199.7	201.1	195.6
45°	166.3	164.9	162.9	163.5	163.5	160.2	162.2	163.5	161.5	162.2	157.4
47.5°	132.2	130.2	130.2	129.5	129.5	128.1	130.2	129.5	127.4	128.8	124.0
50°	102.9	101.5	101.5	101.5	101.5	99.5	100.2	101.5	99.5	99.5	96.8
52.5°	80.4	78.4	77.0	77.0	77.0	76.3	76.3	77.0	75.0	75.0	74.3
55°	60.6	60.0	57.9	57.9	57.9	55.9	56.6	56.6	55.9	55.9	53.8
57.5°	45.0	42.9	41.6	41.6	40.2	40.2	39.5	40.2	38.8	38.8	37.5
60°	30.0	28.6	27.9	27.2	27.2	26.6	27.2	26.6	26.6	25.9	25.2
62.5°	21.8	20.4	19.1	19.1	19.1	18.4	18.4	18.4	18.4	18.4	17.7
65°	15.7	14.3	14.3	13.6	13.6	13.0	13.0	13.0	13.0	13.0	12.3
67.5°	10.9	10.2	9.5	9.5	9.5	9.5	9.5	9.5	8.9	8.9	8.9
70°	8.2	7.5	6.8	6.8	6.8	6.8	6.8	6.1	6.8	6.8	6.1
72.5°	5.4	5.4	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
75°	4.1	4.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.7	2.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
80°	2.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	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: P856798

CATALOG NUMBER: LX4C10D010 EX4C109050 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	528.8	528.8	528.8	528.8	528.8	528.8	528.8	528.8
2.5°	541.8	541.1	539.7	541.8	536.3	534.3	533.6	539.7
5°	549.3	547.9	547.9	550.0	543.8	542.5	541.1	547.9
7.5°	556.1	554.7	554.7	556.8	551.3	550.0	548.6	555.4
10°	560.2	560.2	560.2	561.5	556.8	555.4	554.7	561.5
12.5°	562.2	562.2	561.5	564.3	558.1	558.1	556.8	563.6
15°	559.5	559.5	559.5	561.5	556.1	554.7	554.7	560.2
17.5°	552.7	552.7	552.0	554.1	547.9	547.9	547.2	553.4
20°	542.5	542.5	541.1	543.8	537.7	535.7	535.0	541.1
22.5°	526.1	525.4	524.8	526.1	520.7	519.3	518.6	524.1
25°	505.0	504.3	503.0	504.3	498.2	496.1	496.1	500.2
27.5°	475.0	475.0	473.0	475.0	468.2	467.5	466.8	471.6
30°	438.2	435.5	434.1	436.8	430.0	430.0	428.7	433.4
32.5°	392.5	389.8	389.1	390.5	384.4	382.3	385.0	387.8
35°	340.1	340.7	338.0	338.0	332.6	333.2	333.9	338.0
37.5°	289.6	288.3	287.6	288.3	284.2	282.8	281.5	285.6
40°	242.6	239.2	238.5	238.5	235.1	234.4	235.1	237.2
42.5°	198.3	197.6	194.9	196.3	192.9	194.2	193.5	193.5
45°	160.2	160.8	158.1	160.2	157.4	155.4	155.4	156.7
47.5°	126.8	126.8	126.1	126.1	124.0	124.7	123.3	125.4
50°	98.1	98.1	96.8	97.5	96.1	96.1	95.4	96.1
52.5°	75.0	74.3	74.3	73.6	72.2	72.9	73.6	72.2
55°	54.5	55.2	53.8	54.5	53.2	53.8	53.2	53.8
57.5°	37.5	38.2	36.8	38.2	36.8	37.5	36.8	36.8
60°	25.9	25.9	25.2	25.9	25.2	25.2	24.5	25.9
62.5°	17.7	17.7	17.7	17.7	17.7	17.0	17.7	17.7
65°	13.0	12.3	12.3	12.3	12.3	12.3	12.3	12.3
67.5°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
70°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
72.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.0	0.7	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)