

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: P856882

Luminaire Tested: **LX4C10D010 EX4C109030 4LBSWNH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P856882
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 EX4C109030 4LBSWNH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

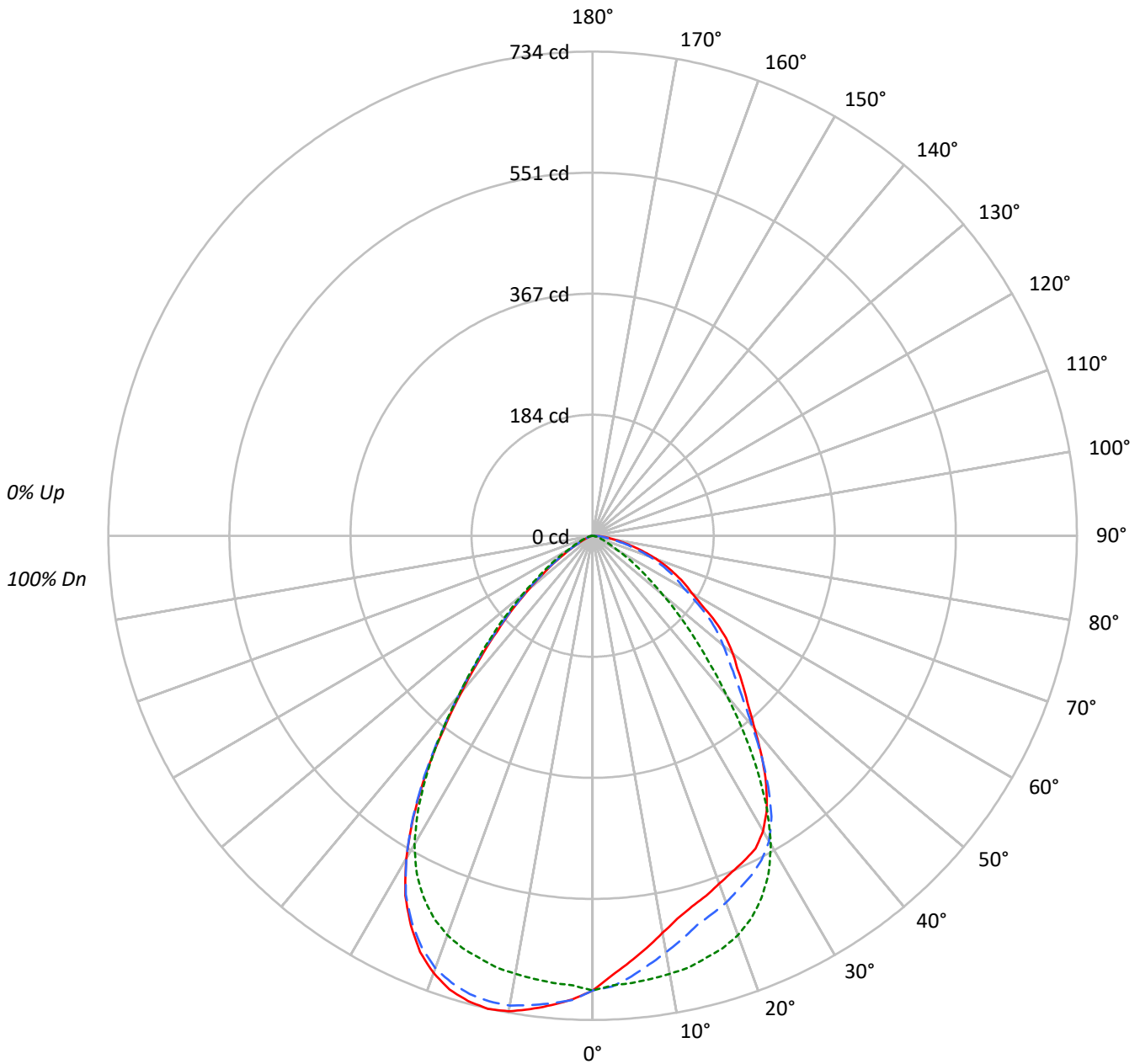
Lumens per Lamp: N/A
Luminaire Lumens: 1208.3 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 17
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°	84683	84683	84683
5°	79962	83909	88077
10°	76234	84106	91316
15°	73998	84287	92859
20°	73383	84195	92196
25°	73687	82105	88368
30°	73327	76604	80150
35°	68734	65420	66065
40°	61247	50710	49588
45°	56014	37806	35495
50°	52980	26490	23948
55°	48685	17863	15036
60°	42556	10492	8305
65°	40290	6715	4622
70°	36710	4813	2874
75°	30379	3418	2136
80°	23913	1910	1273
85°	21285	1269	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	5.4
10°-20°	186.8	15.5
20°-30°	277.0	22.9
30°-40°	277.3	23.0
40°-50°	193.8	16.0
50°-60°	115.3	9.5
60°-70°	60.2	5.0
70°-80°	26.8	2.2
80°-90°	5.8	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°	528.9	43.8
0°-40°	806.3	66.7
0°-60°	1115.5	92.3
0°-90°	1208.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1208.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	689	689	689	689	689	
5°	648	671	680	711	714	61
15°	582	611	663	719	730	165
25°	544	568	606	648	652	250
35°	458	464	436	444	440	284
45°	322	306	218	210	204	250
55°	227	213	83	73	70	202
65°	139	127	23	17	16	137
75°	64	56	7	4	4	69
85°	15	12	1	1	0	17
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°	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3
2.5°	667.0	675.1	667.0	669.7	680.4	670.7	675.9	675.9	673.2	679.5	683.9
5°	648.4	656.4	648.4	651.9	663.5	653.8	660.0	658.3	659.1	664.5	670.7
7.5°	629.8	636.0	628.8	633.3	644.0	636.0	641.2	641.2	642.2	650.2	655.6
10°	611.1	616.4	611.1	614.7	626.3	619.1	622.6	623.6	626.3	633.3	641.2
12.5°	594.3	598.7	593.3	598.7	608.4	601.3	605.7	606.7	609.4	617.4	626.3
15°	581.8	586.3	580.9	585.4	594.3	588.9	592.5	594.3	596.0	603.0	611.1
17.5°	572.0	575.6	571.2	576.4	583.6	577.4	582.7	582.7	585.4	592.5	601.3
20°	561.3	565.0	561.3	565.8	573.9	568.5	572.9	572.9	575.6	583.6	591.6
22.5°	551.6	553.4	551.6	555.1	563.1	558.8	561.3	562.3	565.0	572.0	579.2
25°	543.6	547.2	545.4	548.9	554.3	549.9	552.4	553.4	556.1	562.3	568.5
27.5°	534.7	536.5	534.7	539.2	543.6	540.0	542.7	541.9	543.6	548.9	554.3
30°	516.9	518.8	518.8	521.4	525.0	523.3	525.8	523.3	525.0	529.3	534.7
32.5°	491.3	492.1	493.0	495.7	498.3	495.7	497.5	497.5	497.5	501.0	504.5
35°	458.3	460.1	459.3	461.0	463.7	462.8	462.8	461.8	460.1	461.8	463.7
37.5°	421.1	418.4	418.4	421.1	422.8	419.3	421.1	419.3	419.3	420.1	420.1
40°	381.9	379.4	381.9	382.9	383.7	381.9	381.1	379.4	376.7	377.5	375.7
42.5°	349.1	347.4	348.2	348.2	349.1	347.4	348.2	344.7	342.0	340.2	337.5
45°	322.4	319.8	322.4	320.6	320.6	319.8	318.9	317.1	313.6	310.9	306.5
47.5°	297.5	297.5	298.5	298.5	298.5	296.7	296.7	293.1	289.6	286.1	279.9
50°	277.2	275.4	278.9	278.9	276.2	275.4	276.2	271.8	269.2	264.7	258.5
52.5°	254.9	254.9	255.8	255.8	254.9	253.1	254.1	250.4	247.9	243.4	237.2
55°	227.3	225.6	228.3	228.3	227.3	226.5	227.3	224.8	222.1	218.6	213.2
57.5°	196.3	195.3	197.2	198.0	196.3	196.3	197.2	194.5	193.6	190.1	184.8
60°	173.2	172.3	174.2	175.0	173.2	173.2	173.2	169.7	167.8	164.3	160.8
62.5°	157.3	156.3	158.1	157.3	156.3	155.4	156.3	152.8	151.1	147.4	143.9
65°	138.6	139.5	140.4	140.4	139.5	138.6	138.6	136.8	135.0	131.5	127.0
67.5°	120.8	120.8	121.6	122.6	121.6	121.6	121.6	119.1	117.2	114.6	109.2
70°	102.2	101.2	104.0	104.0	102.2	103.0	102.2	101.2	99.5	96.0	91.5
72.5°	82.6	82.6	83.4	83.4	82.6	82.6	82.6	81.7	79.0	77.2	72.9
75°	64.0	64.0	64.8	65.7	64.0	64.0	64.8	63.0	61.3	58.6	55.9
77.5°	47.9	47.1	47.9	47.9	47.1	47.1	47.1	46.2	45.4	42.7	40.0
80°	33.8	32.8	33.8	33.8	33.8	32.8	32.8	32.0	32.0	30.2	27.5
82.5°	23.1	22.3	23.1	23.1	23.1	22.3	22.3	22.3	21.3	20.4	18.6
85°	15.1	14.2	14.2	15.1	14.2	14.2	14.2	14.2	13.4	12.4	11.6
87.5°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	6.2	6.2	6.2	5.3
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°	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3
2.5°	680.4	678.6	683.9	682.2	683.1	678.6	685.8	682.2	686.6	682.2	691.1
5°	668.8	667.0	675.1	674.2	675.1	671.5	679.5	678.6	683.9	680.4	690.1
7.5°	656.4	654.6	663.5	664.5	666.2	662.7	673.2	673.2	678.6	677.7	688.4
10°	642.2	643.1	651.9	653.8	657.3	655.6	665.3	668.0	675.1	674.2	687.6
12.5°	628.8	628.8	640.4	644.0	646.7	645.7	657.3	660.8	668.8	670.7	683.1
15°	615.6	616.4	627.1	632.5	636.0	635.2	647.6	651.9	661.8	662.7	677.7
17.5°	604.9	604.0	615.6	620.1	625.3	624.5	637.7	643.1	652.9	655.6	669.7
20°	596.0	595.1	605.7	611.1	614.7	613.8	627.1	633.3	642.2	644.0	658.3
22.5°	585.4	583.6	594.3	598.7	602.2	601.3	612.9	617.4	626.3	628.0	641.2
25°	572.9	571.2	580.9	583.6	586.3	584.4	594.3	597.0	604.0	605.7	619.1
27.5°	558.8	554.3	562.3	562.3	564.0	561.3	568.5	571.2	577.4	577.4	589.8
30°	536.5	530.3	534.7	533.8	534.7	531.2	535.7	536.5	540.9	540.0	548.9
32.5°	505.4	496.5	499.2	496.5	493.8	488.6	493.8	492.1	495.7	492.1	500.0
35°	462.8	453.9	453.1	449.4	446.8	442.4	442.4	437.9	438.8	436.2	441.4
37.5°	416.6	405.0	403.2	396.2	391.8	386.4	386.4	382.9	378.4	376.7	381.1
40°	371.2	358.8	354.4	342.9	338.4	333.0	329.5	325.1	323.3	316.2	319.8
42.5°	332.2	318.9	309.2	296.7	292.3	284.2	278.9	273.6	270.9	263.0	266.5
45°	299.3	283.4	272.7	256.6	250.4	241.6	233.6	227.3	221.1	217.6	215.9
47.5°	271.8	254.9	240.7	222.9	213.2	205.2	194.5	188.3	180.4	175.9	173.2
50°	248.7	230.0	214.1	193.6	183.9	175.0	162.5	152.8	145.7	138.6	136.8
52.5°	228.3	208.7	191.0	167.8	156.3	145.7	132.3	121.6	115.4	107.5	106.6
55°	204.3	187.4	167.8	143.9	132.3	121.6	107.5	96.8	88.8	83.4	81.7
57.5°	178.6	162.5	143.9	119.9	108.4	96.8	83.4	73.7	66.6	62.2	61.3
60°	154.6	139.5	121.6	97.7	86.1	76.4	62.2	52.4	46.2	42.7	40.9
62.5°	136.8	122.6	105.7	83.4	72.9	63.0	49.8	40.9	35.5	32.0	30.2
65°	119.9	105.7	90.6	70.2	61.3	52.4	40.0	32.0	26.6	23.1	21.3
67.5°	102.2	89.8	75.5	58.6	49.8	42.7	32.0	24.8	20.4	17.8	15.9
70°	84.4	72.9	61.3	47.1	40.9	33.8	24.8	19.6	15.1	13.4	11.6
72.5°	66.6	57.8	47.9	36.4	31.0	26.6	19.6	14.2	11.6	9.7	8.0
75°	49.8	43.5	35.5	27.5	23.1	19.6	14.2	10.7	8.9	7.2	6.2
77.5°	35.5	30.2	24.8	18.6	16.9	14.2	9.7	8.0	6.2	4.5	3.5
80°	24.0	21.3	16.9	13.4	10.7	9.7	7.2	5.3	3.5	2.7	2.7
82.5°	15.9	13.4	10.7	8.0	7.2	6.2	4.5	3.5	2.7	1.8	1.8
85°	9.7	8.0	6.2	4.5	4.5	3.5	2.7	1.8	0.9	0.9	0.9
87.5°	4.5	3.5	2.7	1.8	1.8	0.9	0.9	0.9	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°	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3
2.5°	698.2	692.8	689.3	693.8	695.5	692.8	695.5	700.0	704.4	705.2	692.8
5°	699.0	693.8	691.9	697.3	698.2	697.3	700.0	706.2	711.4	713.3	700.8
7.5°	699.0	695.5	694.6	700.8	701.7	700.8	705.2	712.4	717.7	721.3	708.9
10°	697.3	695.5	696.3	701.7	703.5	703.5	709.7	717.7	723.1	726.6	714.2
12.5°	694.6	694.6	694.6	700.8	702.7	703.5	708.9	719.4	723.1	728.3	715.9
15°	690.1	690.1	690.1	696.3	699.0	699.0	705.2	715.1	719.4	724.8	712.4
17.5°	682.2	682.2	683.1	688.4	691.1	691.1	697.3	707.9	710.6	716.8	704.4
20°	670.7	670.7	671.5	676.9	679.5	677.7	685.8	694.6	697.3	702.7	690.1
22.5°	653.8	653.8	653.8	659.1	660.8	660.0	668.0	675.9	675.9	683.1	669.7
25°	628.8	630.7	628.8	634.2	636.0	635.2	642.2	649.4	647.6	655.6	642.2
27.5°	598.7	597.8	597.8	602.2	602.2	601.3	606.7	614.7	612.9	618.2	605.7
30°	556.9	559.6	555.1	561.3	558.8	556.9	560.5	567.5	565.0	569.4	559.6
32.5°	509.0	505.4	505.4	505.4	507.2	502.7	506.3	509.9	507.2	511.6	501.0
35°	445.9	446.8	444.2	445.1	445.9	440.5	444.2	447.7	444.2	446.8	437.0
37.5°	382.9	383.7	377.5	381.1	377.5	375.7	379.4	381.1	377.5	380.2	369.5
40°	319.8	318.1	317.1	317.1	318.1	313.6	316.2	318.9	316.2	318.1	308.2
42.5°	264.7	263.8	262.0	263.0	260.3	259.3	260.3	263.0	260.3	262.0	254.9
45°	216.7	214.9	212.4	213.2	213.2	208.7	211.4	213.2	210.5	211.4	205.2
47.5°	172.3	169.7	169.7	168.8	168.8	167.0	169.7	168.8	166.0	167.8	161.7
50°	134.2	132.3	132.3	132.3	132.3	129.7	130.5	132.3	129.7	129.7	126.1
52.5°	104.8	102.2	100.4	100.4	100.4	99.5	99.5	100.4	97.7	97.7	96.8
55°	79.0	78.2	75.5	75.5	75.5	72.9	73.7	73.7	72.9	72.9	70.2
57.5°	58.6	55.9	54.1	54.1	52.4	52.4	51.6	52.4	50.6	50.6	48.9
60°	39.0	37.3	36.4	35.5	35.5	34.7	35.5	34.7	34.7	33.8	32.8
62.5°	28.4	26.6	24.8	24.8	24.8	24.0	24.0	24.0	24.0	24.0	23.1
65°	20.4	18.6	18.6	17.8	17.8	16.9	16.9	16.9	16.9	16.9	15.9
67.5°	14.2	13.4	12.4	12.4	12.4	12.4	12.4	12.4	11.6	11.6	11.6
70°	10.7	9.7	8.9	8.9	8.9	8.9	8.9	8.0	8.9	8.9	8.0
72.5°	7.2	7.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
75°	5.3	5.3	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
77.5°	3.5	3.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	2.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	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: P856882

CATALOG NUMBER: LX4C10D010 EX4C109030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	689.3	689.3	689.3	689.3	689.3	689.3	689.3	689.3
2.5°	706.2	705.2	703.5	706.2	699.0	696.3	695.5	703.5
5°	715.9	714.2	714.2	716.8	708.9	707.0	705.2	714.2
7.5°	724.8	723.1	723.1	725.8	718.6	716.8	715.1	723.9
10°	730.1	730.1	730.1	732.0	725.8	723.9	723.1	732.0
12.5°	732.8	732.8	732.0	735.5	727.5	727.5	725.8	734.5
15°	729.3	729.3	729.3	732.0	724.8	723.1	723.1	730.1
17.5°	720.4	720.4	719.4	722.1	714.2	714.2	713.3	721.3
20°	707.0	707.0	705.2	708.9	700.8	698.2	697.3	705.2
22.5°	685.8	684.9	683.9	685.8	678.6	676.9	675.9	683.1
25°	658.3	657.3	655.6	657.3	649.4	646.7	646.7	651.9
27.5°	619.1	619.1	616.4	619.1	610.2	609.4	608.4	614.7
30°	571.2	567.5	565.8	569.4	560.5	560.5	558.8	565.0
32.5°	511.6	508.1	507.2	509.0	501.0	498.3	501.8	505.4
35°	443.2	444.2	440.5	440.5	433.5	434.3	435.2	440.5
37.5°	377.5	375.7	374.9	375.7	370.4	368.7	366.8	372.2
40°	316.2	311.7	310.9	310.9	306.5	305.6	306.5	309.2
42.5°	258.5	257.6	254.1	255.8	251.4	253.1	252.3	252.3
45°	208.7	209.7	206.0	208.7	205.2	202.5	202.5	204.3
47.5°	165.2	165.2	164.3	164.3	161.7	162.5	160.8	163.5
50°	127.8	127.8	126.1	127.0	125.3	125.3	124.3	125.3
52.5°	97.7	96.8	96.8	96.0	94.1	95.0	96.0	94.1
55°	71.0	72.0	70.2	71.0	69.3	70.2	69.3	70.2
57.5°	48.9	49.8	47.9	49.8	47.9	48.9	47.9	47.9
60°	33.8	33.8	32.8	33.8	32.8	32.8	32.0	33.8
62.5°	23.1	23.1	23.1	23.1	23.1	22.3	23.1	23.1
65°	16.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
67.5°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
70°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
72.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
75°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.0	0.9	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)