

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: P857141

Luminaire Tested: **LX4C20D010 EX4C209030 4LBLWW***

Issue Date: 2/9/2022

Test Information

Test Method: LM-79-08
Report Number: P857141
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)
Test Lab: INNOVATION CENTER
Issue Date: 2/9/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C20D010 EX4C209030 4LBLWW*
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH
Light Source: -
Ballast/Driver: -

Summary

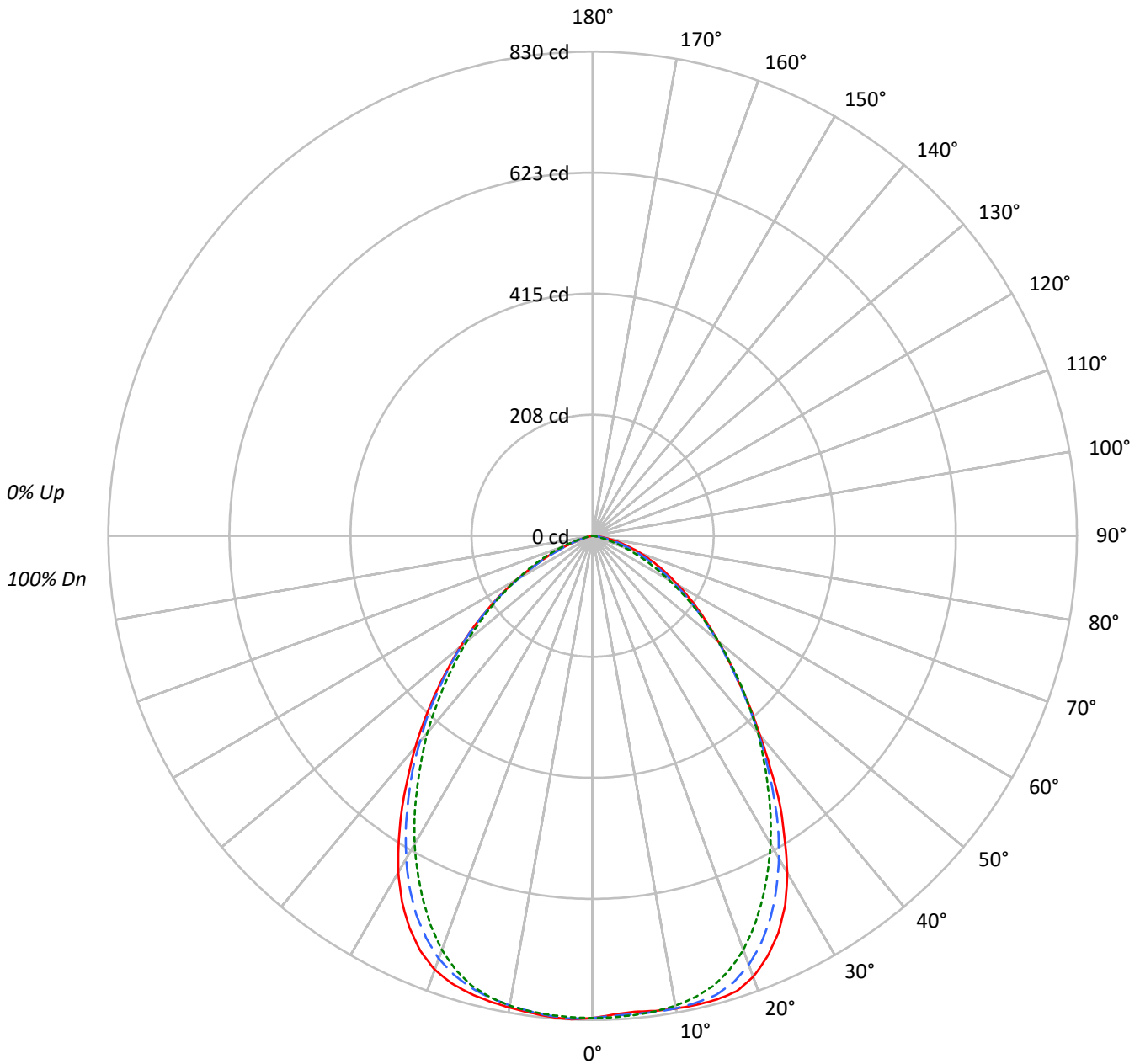
Lumens per Lamp: N/A
Luminaire Lumens: 1585.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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					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								
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89								
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78								
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68								
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60								
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54								
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48								
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43								
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39								
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36								
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	101563	101563	101563
5°	101001	101692	102074
10°	102668	102044	102431
15°	104675	101597	103289
20°	105205	98746	103453
25°	101964	93261	100581
30°	94648	86534	94464
35°	83807	78498	85397
40°	71447	70693	75729
45°	61383	62078	65969
50°	53573	53706	56554
55°	47336	45344	46886
60°	41500	37003	36831
65°	36744	28692	25552
70°	31322	19720	15158
75°	25347	10633	6930
80°	17333	2618	1769
85°	5215	846	846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	5.0
10°-20°	227.5	14.4
20°-30°	328.7	20.7
30°-40°	339.8	21.4
40°-50°	280.7	17.7
50°-60°	193.8	12.2
60°-70°	101.4	6.4
70°-80°	31.9	2.0
80°-90°	2.7	0.2
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°	634.7	40.0
0°-40°	974.4	61.5
0°-60°	1448.9	91.4
0°-90°	1585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1585.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	827	827	827	827	827	
5°	819	823	825	826	828	78
15°	823	815	799	802	812	232
25°	752	722	688	716	742	343
35°	559	540	523	551	569	347
45°	353	352	357	374	380	275
55°	221	214	212	218	219	199
65°	126	115	99	82	88	125
75°	53	42	22	15	15	57
85°	4	2	1	1	1	8
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°	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7
2.5°	821.5	821.8	821.8	822.4	822.4	822.4	822.7	822.7	823.0	823.3	823.6
5°	819.0	819.0	819.6	819.9	820.5	820.8	821.5	821.8	822.4	822.7	823.0
7.5°	821.5	821.5	821.8	822.1	822.1	822.4	822.4	822.7	823.0	823.3	823.3
10°	823.0	823.0	823.0	823.0	823.3	823.3	823.3	823.0	823.0	823.0	822.7
12.5°	823.6	823.6	823.3	823.0	823.3	823.0	823.0	822.1	821.5	820.8	819.9
15°	823.0	823.0	822.7	822.4	822.1	821.5	821.1	819.6	818.4	816.5	815.2
17.5°	819.0	818.4	817.7	817.1	815.9	814.9	814.3	811.5	809.3	806.2	802.8
20°	804.7	804.1	803.1	801.6	800.0	798.8	796.9	792.9	790.7	786.1	782.6
22.5°	781.4	780.8	781.1	778.3	775.2	773.3	772.1	768.7	765.0	759.1	755.3
25°	752.2	750.4	750.4	746.0	744.5	743.2	741.7	737.6	732.0	726.8	721.8
27.5°	714.3	711.9	710.6	710.0	706.3	703.5	701.3	698.2	693.5	688.9	682.1
30°	667.2	666.9	665.3	662.5	659.7	658.5	656.0	650.7	646.4	642.9	638.6
32.5°	611.6	611.3	611.3	611.3	609.4	609.1	605.4	602.6	599.2	593.9	591.1
35°	558.8	558.5	558.8	554.2	552.9	552.0	551.7	549.8	545.2	542.7	540.2
37.5°	499.2	500.1	499.5	498.3	499.8	497.0	499.2	495.2	493.3	492.7	489.9
40°	445.5	448.0	445.5	445.8	447.4	444.6	444.6	443.9	442.7	442.1	441.5
42.5°	399.6	396.4	398.3	396.8	398.3	397.4	395.8	396.8	397.1	395.8	395.5
45°	353.3	353.9	354.5	353.6	353.6	352.7	355.2	353.6	353.6	353.9	351.7
47.5°	315.7	314.8	315.4	314.8	315.1	314.5	315.1	315.4	314.8	314.8	312.9
50°	280.3	279.7	281.9	280.0	280.0	279.7	280.0	279.4	278.5	278.5	279.1
52.5°	249.6	248.4	248.1	249.6	247.4	247.4	247.7	247.1	245.9	245.3	243.7
55°	221.0	220.7	221.0	219.8	219.2	219.2	217.6	217.0	216.7	215.1	214.2
57.5°	194.3	193.4	193.7	193.4	192.2	191.9	190.6	190.6	189.4	188.1	186.6
60°	168.9	168.9	169.8	168.6	167.6	167.0	166.4	165.8	163.6	161.4	159.6
62.5°	146.2	146.5	146.2	145.3	144.7	144.0	143.4	141.6	139.7	138.5	136.3
65°	126.4	126.0	125.1	124.5	122.9	122.9	121.7	120.8	118.6	116.7	114.6
67.5°	105.9	105.2	105.2	105.2	103.4	103.1	102.4	100.6	98.7	96.2	94.4
70°	87.2	87.9	86.9	86.0	85.1	84.8	83.8	82.0	79.8	77.3	75.8
72.5°	69.5	70.2	69.2	68.9	67.1	66.4	66.1	64.6	62.1	60.5	58.1
75°	53.4	53.7	53.1	52.5	51.2	50.9	49.4	48.1	46.6	44.1	41.9
77.5°	38.5	37.9	37.9	36.6	35.4	35.4	35.1	33.2	31.0	29.2	27.3
80°	24.5	24.2	23.3	22.7	21.7	21.4	21.1	19.6	18.0	16.8	15.5
82.5°	12.4	12.1	11.8	11.5	10.9	10.2	10.6	9.3	8.7	7.5	6.5
85°	3.7	4.0	4.0	3.7	3.4	3.4	3.4	3.1	2.5	2.2	1.9
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7
2.5°	823.9	824.2	824.6	824.9	824.9	825.2	825.5	825.8	826.1	826.1	826.4
5°	823.3	823.9	823.9	824.2	824.2	824.2	824.6	824.6	824.6	824.6	824.9
7.5°	823.6	823.6	823.6	823.3	823.3	823.0	823.0	823.0	822.4	822.4	822.4
10°	822.1	821.8	821.5	820.8	820.5	820.2	819.6	819.0	818.4	818.0	817.4
12.5°	819.0	817.7	816.5	815.2	814.6	814.3	813.1	812.1	811.2	810.3	809.7
15°	812.8	810.9	808.7	806.2	805.6	805.0	802.8	801.0	799.7	798.8	797.2
17.5°	800.3	796.6	794.1	790.4	788.9	788.2	784.8	783.0	780.8	780.2	778.9
20°	778.3	774.9	770.2	766.8	765.0	763.1	760.3	757.8	755.3	755.3	753.8
22.5°	750.7	746.3	740.4	736.1	735.8	732.0	729.6	726.8	725.8	724.0	724.0
25°	715.9	712.2	705.7	701.9	700.1	699.1	695.1	691.4	689.5	688.0	689.2
27.5°	677.4	671.8	666.9	662.2	660.6	658.8	655.1	653.5	650.1	649.8	649.5
30°	633.3	627.7	622.8	620.6	617.5	615.9	613.1	611.3	610.0	610.0	609.4
32.5°	587.1	582.1	579.6	575.0	573.4	571.2	569.4	567.5	568.1	567.5	567.8
35°	537.1	535.8	531.2	528.4	528.4	528.1	525.0	523.7	523.1	523.4	525.0
37.5°	489.6	485.9	482.8	480.9	482.4	480.6	480.3	480.3	482.1	480.9	483.4
40°	439.0	438.7	437.4	438.0	438.4	436.2	436.8	437.1	438.4	440.8	441.2
42.5°	394.9	394.6	394.6	394.6	394.0	392.7	394.0	396.1	395.8	397.7	399.2
45°	352.4	351.7	353.0	352.1	353.9	354.5	353.6	354.2	356.1	357.3	359.8
47.5°	313.6	313.6	313.9	314.5	312.6	314.2	314.8	316.0	317.0	317.6	318.8
50°	277.5	277.5	276.9	276.9	276.9	277.9	276.6	278.2	278.5	281.0	282.5
52.5°	244.3	242.8	243.7	243.1	241.8	241.2	241.8	242.2	244.0	244.6	246.5
55°	212.7	212.7	210.2	209.6	210.5	210.2	209.9	209.9	210.8	211.7	213.3
57.5°	184.7	182.9	181.0	180.7	179.8	180.1	180.1	179.8	179.1	179.4	179.8
60°	158.3	157.1	154.3	154.3	154.0	153.7	152.1	151.8	150.3	150.6	149.3
62.5°	134.1	133.5	129.8	128.5	128.5	127.6	126.0	125.7	123.6	123.6	122.3
65°	112.4	110.5	108.3	106.2	106.2	104.9	104.0	101.2	99.7	98.7	96.9
67.5°	92.5	89.7	87.5	85.7	84.4	84.1	82.0	80.1	77.6	76.1	73.3
70°	73.3	71.1	68.9	67.1	65.8	64.6	62.4	59.6	57.7	54.9	53.1
72.5°	55.3	53.4	51.5	49.1	47.5	46.6	44.4	41.9	38.8	36.9	34.5
75°	39.7	37.6	35.1	32.9	32.0	31.0	28.6	26.7	24.5	22.4	19.9
77.5°	25.8	23.3	21.4	18.9	18.6	18.0	15.5	13.7	12.1	10.9	9.3
80°	13.7	12.4	10.9	9.3	8.7	7.8	6.5	5.6	4.7	3.7	3.1
82.5°	5.9	5.0	4.0	3.4	3.1	2.8	2.2	1.9	1.6	1.6	1.2
85°	1.6	1.2	1.2	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.3	0.3	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°	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7
2.5°	826.7	827.0	827.4	827.4	827.7	828.0	828.0	828.3	828.6	828.9	828.9
5°	825.2	825.2	825.2	825.5	825.5	825.5	825.5	826.1	826.1	826.4	826.7
7.5°	822.1	822.1	822.1	822.1	821.8	822.1	821.8	821.8	822.4	822.7	823.0
10°	817.1	816.8	816.8	816.5	816.5	816.5	816.8	817.1	817.4	817.7	818.7
12.5°	809.3	809.0	809.0	808.7	808.7	809.0	809.3	810.0	811.2	811.8	813.1
15°	796.9	796.6	796.9	797.2	797.9	798.8	799.7	800.7	802.5	804.1	805.6
17.5°	778.9	779.2	779.5	780.2	781.1	782.3	784.8	787.3	789.5	792.0	794.4
20°	754.1	755.3	755.6	757.8	758.4	761.2	764.0	767.7	771.2	774.3	777.7
22.5°	724.3	725.2	726.5	728.9	730.5	734.2	737.6	742.0	745.7	749.7	754.7
25°	690.4	690.8	694.5	694.5	698.2	701.3	705.3	710.0	715.6	720.9	724.3
27.5°	651.9	653.5	656.3	657.5	660.3	665.3	668.7	674.3	679.9	684.5	688.3
30°	611.6	612.8	617.5	618.1	620.3	624.6	629.3	634.6	638.9	644.2	647.6
32.5°	569.1	572.5	575.3	577.4	578.1	584.6	587.1	590.8	595.8	601.0	604.4
35°	527.8	529.3	533.4	534.6	536.5	540.2	545.2	548.3	550.7	554.2	558.2
37.5°	484.0	488.7	489.6	493.3	493.9	497.3	499.8	503.6	506.7	509.8	510.4
40°	443.3	444.9	448.3	449.2	449.8	454.5	457.6	458.5	460.1	462.9	466.6
42.5°	402.0	403.6	407.3	406.4	409.2	411.3	412.9	416.6	418.2	419.1	419.1
45°	361.4	362.0	364.5	365.7	367.3	368.5	371.3	373.2	373.8	376.6	377.5
47.5°	322.6	323.2	325.0	327.2	326.6	328.1	331.3	332.2	332.5	334.4	335.3
50°	284.4	285.9	288.4	287.8	289.7	290.6	293.4	294.0	294.0	294.3	294.6
52.5°	248.7	249.9	250.5	251.2	252.1	253.6	254.9	254.3	255.5	256.7	255.8
55°	213.3	214.2	215.8	216.4	216.4	216.7	216.1	218.9	217.6	217.3	217.6
57.5°	181.0	179.8	179.4	181.0	181.6	181.3	180.4	181.6	181.6	181.0	180.1
60°	149.6	148.7	148.4	148.7	147.5	146.5	147.2	146.5	145.0	144.4	144.7
62.5°	121.1	120.1	117.7	117.7	117.0	116.7	114.2	114.6	113.3	111.5	112.1
65°	94.7	92.2	91.0	90.7	88.5	86.6	86.0	83.8	82.0	81.6	82.0
67.5°	71.1	68.3	66.1	65.2	64.0	62.4	60.2	58.4	59.0	58.7	59.9
70°	49.4	47.5	45.3	43.8	44.4	42.5	41.3	41.3	41.6	41.9	42.5
72.5°	32.9	30.4	29.5	28.6	27.9	26.7	27.3	27.3	27.0	27.3	26.7
75°	18.6	17.4	16.5	16.1	15.5	15.5	15.5	15.5	15.2	14.9	14.9
77.5°	8.4	7.8	7.5	7.1	7.1	7.1	6.8	6.5	6.5	6.5	6.2
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	1.2	1.2	1.6	1.6	1.6	1.2	1.6	1.6	1.2	1.2	1.6
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.0	0.3	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°	826.7	826.7	826.7	826.7	826.7	826.7	826.7	826.7
2.5°	829.2	829.5	829.5	829.5	829.8	829.8	829.8	829.8
5°	827.0	827.4	827.4	827.4	827.7	827.7	827.7	827.7
7.5°	823.3	823.6	823.6	823.9	823.9	824.2	824.2	824.6
10°	819.0	819.6	819.9	820.2	820.5	820.8	820.8	821.1
12.5°	814.3	814.9	815.2	815.9	816.5	816.8	817.1	817.4
15°	807.5	808.7	809.3	809.7	810.9	811.5	811.8	812.1
17.5°	796.6	799.1	800.0	800.7	801.9	803.1	804.1	804.4
20°	781.1	783.9	785.1	786.7	788.5	790.1	790.7	791.3
22.5°	759.4	762.5	764.3	766.2	767.7	769.3	771.8	770.9
25°	728.3	733.6	735.8	736.7	740.1	742.0	743.2	742.0
27.5°	693.5	696.7	698.5	700.7	703.2	705.0	705.7	707.5
30°	651.6	656.9	656.6	658.8	661.9	663.7	664.4	665.9
32.5°	608.2	610.7	612.5	612.2	613.5	616.9	615.6	618.4
35°	561.9	562.2	565.3	565.0	567.5	567.5	567.5	569.4
37.5°	512.6	516.3	514.7	518.5	517.2	518.1	518.1	518.8
40°	467.5	468.8	468.8	470.0	471.0	470.0	470.6	472.2
42.5°	421.0	422.2	422.5	421.9	422.8	425.6	423.5	425.3
45°	377.5	378.4	379.7	378.8	380.3	379.4	380.3	379.7
47.5°	336.5	336.2	335.9	338.4	336.2	336.5	337.8	335.6
50°	294.6	296.5	295.2	296.2	296.8	296.8	295.9	295.9
52.5°	257.4	257.1	256.1	257.1	256.4	256.7	257.4	256.7
55°	218.9	220.1	219.5	219.2	219.5	219.5	221.4	218.9
57.5°	181.0	180.4	181.3	183.5	181.3	182.9	183.8	184.1
60°	145.0	145.0	146.8	145.9	147.8	149.3	150.6	149.9
62.5°	110.5	112.1	112.7	113.0	114.9	116.1	116.1	115.8
65°	82.0	84.1	84.1	85.4	86.0	86.0	86.6	87.9
67.5°	60.5	60.5	60.8	61.5	61.2	61.2	61.8	62.1
70°	42.2	41.6	42.5	42.2	42.2	41.9	42.2	42.2
72.5°	26.7	26.7	27.0	26.7	26.1	26.4	26.4	27.0
75°	14.3	14.9	14.3	14.3	14.6	14.0	14.3	14.6
77.5°	5.9	5.9	5.9	5.9	5.9	5.6	5.6	5.6
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.5	2.5
82.5°	1.2	1.6	1.2	1.6	1.2	1.2	1.2	1.2
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.3	0.0	0.3	0.0	0.0	0.0	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)