

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: FAIL-SAFE

Report Number: P735590

Luminaire Tested: **4APN6-24-B2750-W2D-CP125-3500K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735590
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P709119)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN6-24-B2750-W2D-CP125-3500K
Description: 4FT 2400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3500K CCT, AND CP125 LENS

Light Source: -
Ballast/Driver: -

Summary

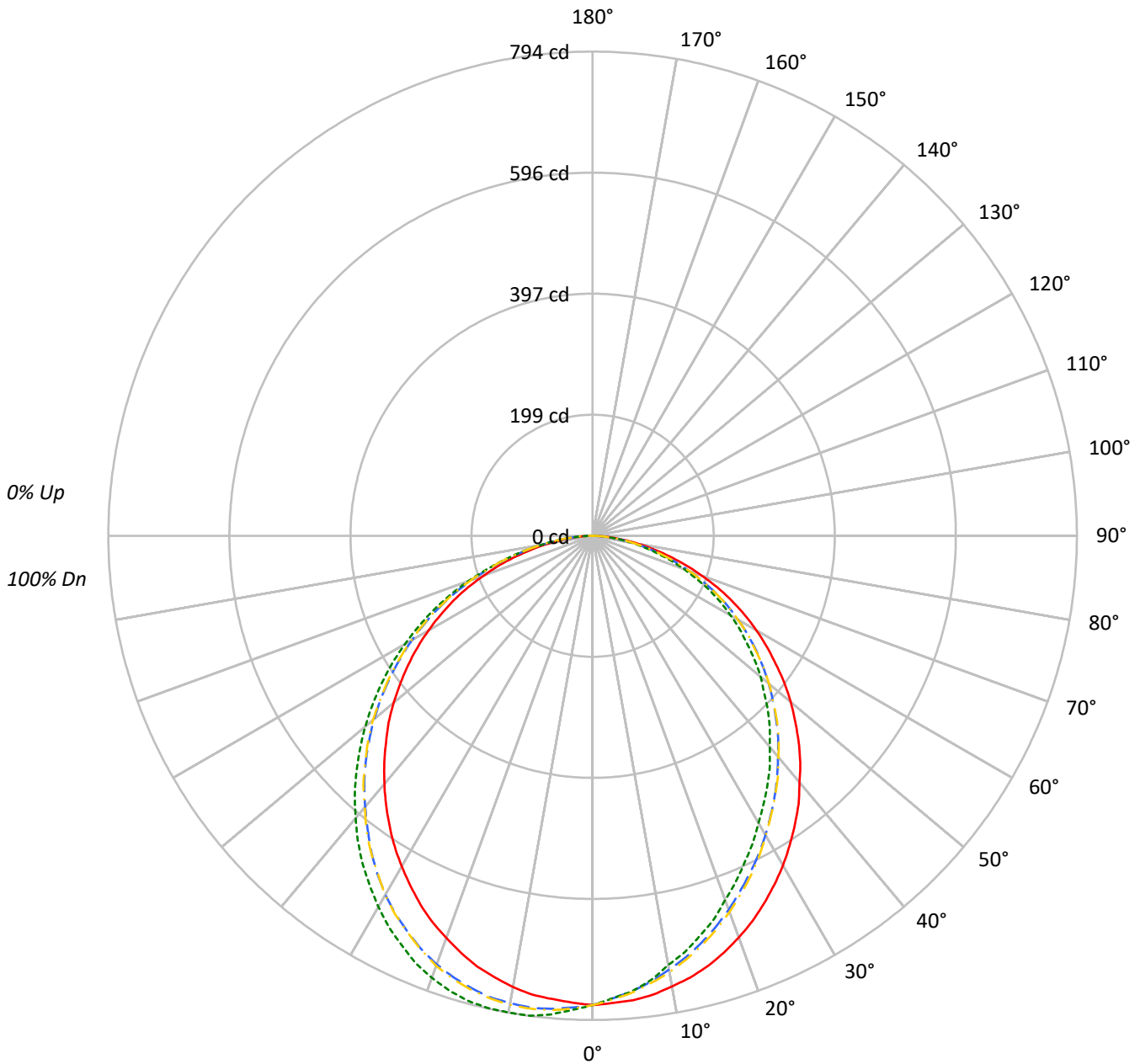
Lumens per Lamp: N/A
Luminaire Lumens: 2064.0 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
Input Voltage (V): NR
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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84			
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70			
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59			
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51			
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	38			
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30			
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	7100	7100	7100	7100
5°	7079	6942	7063	7297
10°	7030	6696	7039	7438
15°	6977	6487	6985	7542
20°	6882	6241	6890	7573
25°	6771	6009	6797	7542
30°	6650	5797	6668	7484
35°	6510	5628	6539	7403
40°	6354	5441	6397	7277
45°	6236	5305	6247	7145
50°	6086	5160	6110	6984
55°	5895	4972	5937	6793
60°	5718	4820	5735	6554
65°	5491	4617	5491	6272
70°	5120	4276	5096	5846
75°	4656	3878	4591	5247
80°	4027	3331	3889	4490
85°	3133	2488	2953	3684



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.5
10°-20°	206.4	10.0
20°-30°	306.8	14.9
30°-40°	361.6	17.5
40°-50°	368.2	17.8
50°-60°	328.0	15.9
60°-70°	247.1	12.0
70°-80°	137.4	6.7
80°-90°	35.7	1.7
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°	585.9	28.4
0°-40°	947.5	45.9
0°-60°	1643.7	79.6
0°-90°	2064.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2064.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	770	770	770	770	770	
5°	764	750	763	788	764	73
15°	730	679	731	790	730	206
25°	665	590	668	741	665	306
35°	578	500	581	657	578	362
45°	478	407	479	548	478	368
55°	366	309	369	422	366	328
65°	252	212	252	287	252	248
75°	131	109	129	147	131	139
85°	30	24	28	35	30	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6
2.5°	767.0	767.0	767.8	764.4	760.0	758.3	757.4	756.5	758.3	759.1	758.3
5°	764.4	762.6	760.9	756.5	751.3	747.8	746.0	745.2	747.0	749.6	747.0
7.5°	759.1	755.7	752.2	746.0	740.0	734.7	732.2	730.4	732.2	734.7	733.0
10°	750.4	746.0	740.9	733.9	725.2	719.1	716.5	713.9	714.7	714.7	714.7
12.5°	741.7	735.7	729.6	720.9	711.2	704.3	699.9	696.5	698.2	699.1	699.1
15°	730.4	722.6	713.9	704.3	694.7	686.9	681.7	678.2	679.1	679.1	679.9
17.5°	716.5	707.8	699.1	687.8	676.4	667.7	661.7	657.3	659.0	659.9	660.7
20°	700.9	691.2	681.7	669.5	657.3	647.7	641.6	636.4	635.6	635.6	636.4
22.5°	684.3	673.8	662.5	649.4	636.4	625.9	619.8	614.6	613.8	613.8	614.6
25°	665.1	653.8	642.5	629.4	615.5	605.1	597.2	592.0	591.1	590.3	592.0
27.5°	645.1	633.8	622.5	609.4	594.6	584.1	576.3	571.1	569.3	568.5	570.3
30°	624.2	611.1	599.0	585.0	571.9	561.6	553.7	547.6	545.9	544.1	545.9
32.5°	601.6	588.5	575.4	561.6	548.5	538.0	530.2	524.1	522.4	521.4	523.2
35°	578.0	565.0	552.8	538.9	525.8	515.4	507.6	502.4	500.6	499.7	500.6
37.5°	554.5	541.6	529.3	515.4	502.4	491.9	484.0	478.8	477.9	477.1	477.9
40°	527.6	516.3	504.0	491.0	477.9	467.5	461.4	455.3	453.6	451.8	454.5
42.5°	504.0	492.7	480.6	468.4	455.3	444.8	437.9	432.7	431.0	430.0	431.0
45°	477.9	465.8	453.6	442.3	430.0	420.5	413.5	408.3	407.4	406.6	407.4
47.5°	450.1	439.7	429.2	417.9	405.7	396.1	390.0	384.8	383.1	381.3	383.1
50°	424.0	413.5	403.1	392.6	381.3	372.6	366.5	361.3	360.4	359.5	360.4
52.5°	396.1	385.7	376.1	365.7	356.0	347.3	341.3	337.0	336.0	335.2	336.0
55°	366.5	357.8	349.1	340.4	330.8	323.0	317.8	312.5	310.8	309.1	310.8
57.5°	338.6	330.8	322.1	313.4	304.7	297.8	292.5	288.1	287.3	286.4	287.3
60°	309.9	303.0	295.1	287.3	278.6	271.7	267.3	263.8	262.0	261.2	262.0
62.5°	281.2	274.2	268.1	260.3	252.5	247.2	242.8	239.4	237.7	236.8	237.7
65°	251.5	245.5	239.4	232.5	226.4	221.1	216.7	213.3	212.4	211.5	211.5
67.5°	221.1	215.9	210.7	204.6	197.7	192.4	188.0	185.4	184.6	183.7	184.6
70°	189.8	185.4	180.2	175.0	169.8	165.4	162.8	160.2	159.3	158.5	158.5
72.5°	160.2	156.7	152.4	148.0	143.7	139.3	136.7	134.9	134.1	133.2	133.2
75°	130.6	127.1	124.5	121.1	116.7	114.0	111.4	109.7	108.8	108.8	108.8
77.5°	102.7	100.1	97.5	94.0	91.4	88.8	87.1	86.2	85.3	85.3	85.3
80°	75.8	74.0	72.2	70.5	67.9	65.3	64.5	63.5	62.7	62.7	62.7
82.5°	51.4	50.5	48.7	47.1	45.3	44.4	43.5	42.7	42.7	42.7	42.7
85°	29.6	28.7	27.9	26.9	26.1	26.1	25.3	24.4	23.5	23.5	23.5
87.5°	12.2	12.2	12.2	11.3	10.5	10.5	10.5	10.5	10.5	10.5	10.5
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6
2.5°	756.5	758.3	760.0	762.6	765.2	767.8	767.0	766.2	769.6	773.9	774.9
5°	745.2	747.0	749.6	753.9	758.3	761.8	762.6	762.6	769.6	775.7	777.5
7.5°	731.3	733.9	737.3	741.7	747.8	753.1	755.7	759.1	766.2	773.9	777.5
10°	713.9	718.3	723.5	729.6	735.7	741.7	747.0	751.3	760.0	768.7	773.9
12.5°	698.2	702.5	707.8	714.7	722.6	730.4	735.7	741.7	752.2	762.6	768.7
15°	680.7	685.1	691.2	698.2	706.9	715.6	723.5	731.3	741.7	753.1	760.0
17.5°	661.7	666.0	672.0	680.7	690.4	699.9	708.6	717.3	729.6	741.7	749.6
20°	638.1	644.3	652.0	660.7	672.0	683.4	692.1	701.7	714.7	727.8	736.5
22.5°	615.5	621.6	630.3	640.7	653.0	665.1	675.6	686.0	699.9	713.0	722.6
25°	593.7	600.7	609.4	619.8	631.2	643.3	655.6	667.7	681.7	695.6	705.2
27.5°	571.9	578.0	586.7	597.2	610.3	622.5	634.6	646.9	661.7	676.4	686.9
30°	547.6	554.5	562.4	572.9	586.7	600.7	612.9	625.9	640.7	655.6	666.0
32.5°	525.0	531.1	538.9	549.3	563.2	577.2	590.3	604.2	618.1	632.9	643.3
35°	502.4	508.4	516.3	526.7	540.6	554.5	567.6	580.6	594.6	608.5	619.0
37.5°	479.7	485.8	493.7	504.0	517.1	531.1	543.2	556.3	570.3	584.1	593.7
40°	456.1	462.3	468.4	478.8	491.9	505.8	518.0	531.1	545.0	558.9	568.5
42.5°	432.7	438.7	446.6	457.1	469.2	481.4	493.7	505.8	518.9	531.9	541.6
45°	409.2	414.4	422.3	431.8	444.0	455.3	467.5	478.8	491.9	504.0	513.7
47.5°	384.8	390.0	396.1	405.7	417.9	430.0	442.3	453.6	464.9	477.1	485.8
50°	361.3	366.5	373.4	382.1	393.5	404.8	415.3	425.7	437.1	448.4	456.1
52.5°	337.0	342.1	348.3	357.0	366.5	377.0	386.5	397.0	407.4	417.9	425.7
55°	312.5	316.0	321.2	329.1	339.5	350.0	359.5	369.1	378.7	387.4	395.2
57.5°	288.1	292.5	298.6	305.5	314.3	323.0	331.7	340.4	349.1	357.8	364.7
60°	263.8	267.3	271.7	277.7	286.4	294.3	303.0	310.8	318.6	326.5	332.6
62.5°	238.5	242.0	246.4	252.5	259.4	266.4	274.2	281.2	288.1	295.1	301.2
65°	212.4	215.9	220.2	225.4	231.5	237.7	244.6	251.5	256.8	262.0	268.1
67.5°	185.4	188.9	193.3	197.7	202.8	209.0	215.1	221.1	226.4	231.5	235.9
70°	159.3	161.9	166.2	169.8	174.1	178.5	183.7	188.9	192.4	196.7	202.0
72.5°	134.1	136.7	140.1	143.7	146.2	149.8	155.0	159.3	163.7	168.9	171.5
75°	109.7	111.4	114.0	116.7	119.3	121.9	125.4	128.8	132.4	134.9	138.5
77.5°	85.3	87.1	89.7	91.4	93.2	94.9	97.5	100.1	102.7	104.5	108.0
80°	62.7	64.5	66.1	67.9	69.7	71.4	72.2	73.2	76.6	79.2	80.9
82.5°	42.7	43.5	44.4	46.1	47.1	47.9	48.7	48.7	50.5	52.2	54.8
85°	24.4	25.3	26.1	26.1	26.1	26.1	26.9	27.9	28.7	30.5	32.2
87.5°	9.5	9.5	10.5	10.5	10.5	10.5	10.5	10.5	11.3	13.1	13.9
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6	769.6
2.5°	773.9	774.9	776.5	777.5	778.3	778.3	779.2	780.0	778.3	776.5	775.7
5°	778.3	779.2	781.8	784.4	786.2	787.9	787.0	786.2	784.4	781.8	780.0
7.5°	779.2	781.8	784.4	787.9	790.5	793.9	792.3	790.5	787.0	783.6	780.9
10°	776.5	780.0	784.4	788.7	791.3	793.9	792.3	790.5	787.0	782.6	779.2
12.5°	773.1	777.5	782.6	787.0	789.6	793.1	790.5	787.9	783.6	779.2	774.9
15°	765.2	770.5	776.5	781.8	786.2	789.6	787.0	785.2	780.0	773.9	767.8
17.5°	755.7	762.6	768.7	774.9	778.3	781.8	780.0	778.3	772.2	765.2	758.3
20°	744.4	751.3	757.4	763.5	767.8	771.3	768.7	766.2	760.0	753.9	747.0
22.5°	730.4	737.3	744.4	750.4	754.8	758.3	754.8	750.4	744.4	738.3	731.3
25°	713.0	720.9	728.6	734.7	737.3	740.9	737.3	733.9	727.8	721.7	713.9
27.5°	695.6	703.4	711.2	717.3	719.9	723.5	719.9	716.5	710.4	704.3	696.5
30°	675.6	683.4	691.2	697.3	699.9	702.5	699.1	695.6	690.4	684.3	676.4
32.5°	653.0	660.7	666.9	673.0	676.4	679.9	676.4	673.8	667.7	659.9	652.0
35°	628.5	636.4	644.3	650.3	653.8	657.3	653.0	648.6	643.3	637.2	630.3
37.5°	601.6	610.3	619.0	625.9	628.5	632.0	628.5	624.2	619.0	612.9	605.1
40°	576.3	584.1	592.0	599.0	601.6	604.2	600.7	597.2	591.1	585.0	577.2
42.5°	550.3	558.0	565.0	571.1	573.7	577.2	573.7	569.3	565.0	559.8	552.8
45°	522.4	530.2	536.3	542.4	545.0	547.6	544.1	539.8	535.4	531.1	524.1
47.5°	493.7	500.6	506.7	512.7	514.5	517.1	513.7	511.1	506.7	502.4	496.3
50°	464.0	471.0	477.1	482.3	484.0	486.6	483.2	479.7	476.3	472.7	467.5
52.5°	433.6	439.7	445.8	451.0	452.7	454.5	451.0	447.4	444.0	440.5	435.3
55°	402.3	408.3	414.4	418.7	420.5	422.3	418.7	416.1	412.6	410.0	404.8
57.5°	370.8	377.0	382.1	386.5	388.3	390.0	386.5	383.1	380.5	377.8	373.4
60°	338.6	344.7	349.1	352.6	354.4	355.2	351.7	349.1	347.3	345.7	341.3
62.5°	307.3	311.7	316.0	318.6	320.4	321.2	318.6	316.8	315.2	313.4	309.9
65°	274.2	279.4	283.0	285.5	286.4	287.3	284.7	283.0	281.2	279.4	276.8
67.5°	241.2	245.5	248.1	250.7	251.5	251.5	251.5	250.7	249.0	246.4	243.8
70°	208.0	211.5	214.1	215.9	216.7	216.7	215.1	213.3	213.3	212.4	210.7
72.5°	174.1	176.7	178.5	180.2	180.2	180.2	180.2	181.1	180.2	178.5	175.9
75°	141.9	144.5	146.2	147.2	147.2	147.2	147.2	148.0	147.2	146.2	144.5
77.5°	111.4	113.2	114.0	114.9	114.9	114.9	115.8	116.7	115.8	114.9	114.0
80°	82.7	83.5	84.5	85.3	84.5	84.5	85.3	87.1	86.2	85.3	84.5
82.5°	56.6	57.4	58.4	58.4	59.2	60.1	60.1	60.1	60.1	59.2	58.4
85°	34.0	34.8	34.8	34.8	34.8	34.8	35.7	36.6	36.6	35.7	35.7
87.5°	15.7	16.6	15.7	14.8	13.9	13.9	15.7	17.4	17.4	16.6	16.6
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):

	330°	340°	350°	360°
0°	769.6	769.6	769.6	769.6
2.5°	776.5	775.7	771.3	767.0
5°	779.2	776.5	770.5	764.4
7.5°	779.2	775.7	767.0	759.1
10°	774.9	769.6	760.0	750.4
12.5°	769.6	763.5	752.2	741.7
15°	761.8	754.8	742.6	730.4
17.5°	750.4	741.7	729.6	716.5
20°	739.1	729.6	714.7	700.9
22.5°	723.5	714.7	699.1	684.3
25°	706.0	696.5	680.7	665.1
27.5°	687.8	676.4	660.7	645.1
30°	666.9	655.6	639.9	624.2
32.5°	644.3	633.8	618.1	601.6
35°	621.6	610.3	594.6	578.0
37.5°	596.4	585.9	570.3	554.5
40°	569.3	558.9	543.2	527.6
42.5°	544.1	534.5	518.9	504.0
45°	516.3	506.7	491.9	477.9
47.5°	487.6	477.9	464.0	450.1
50°	459.7	450.1	437.1	424.0
52.5°	428.4	420.5	408.3	396.1
55°	397.9	390.0	377.8	366.5
57.5°	367.4	360.4	349.1	338.6
60°	335.2	328.2	319.5	309.9
62.5°	304.7	298.6	289.9	281.2
65°	272.5	267.3	259.4	251.5
67.5°	239.4	235.1	228.1	221.1
70°	206.4	201.1	195.9	189.8
72.5°	173.3	170.6	165.4	160.2
75°	141.9	139.3	134.9	130.6
77.5°	112.4	109.7	106.2	102.7
80°	82.7	80.9	78.4	75.8
82.5°	57.4	55.8	54.0	51.4
85°	34.8	33.1	31.3	29.6
87.5°	15.7	14.8	13.1	12.2
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°













(END OF REPORT)