

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: P735591

Luminaire Tested: **4APN6-24-B2750-W2D-CP125-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735591
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-CP125-4000K
Description: 4FT 2400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 4000K CCT, AND CP125 LENS

Light Source: -
Ballast/Driver: -

Summary

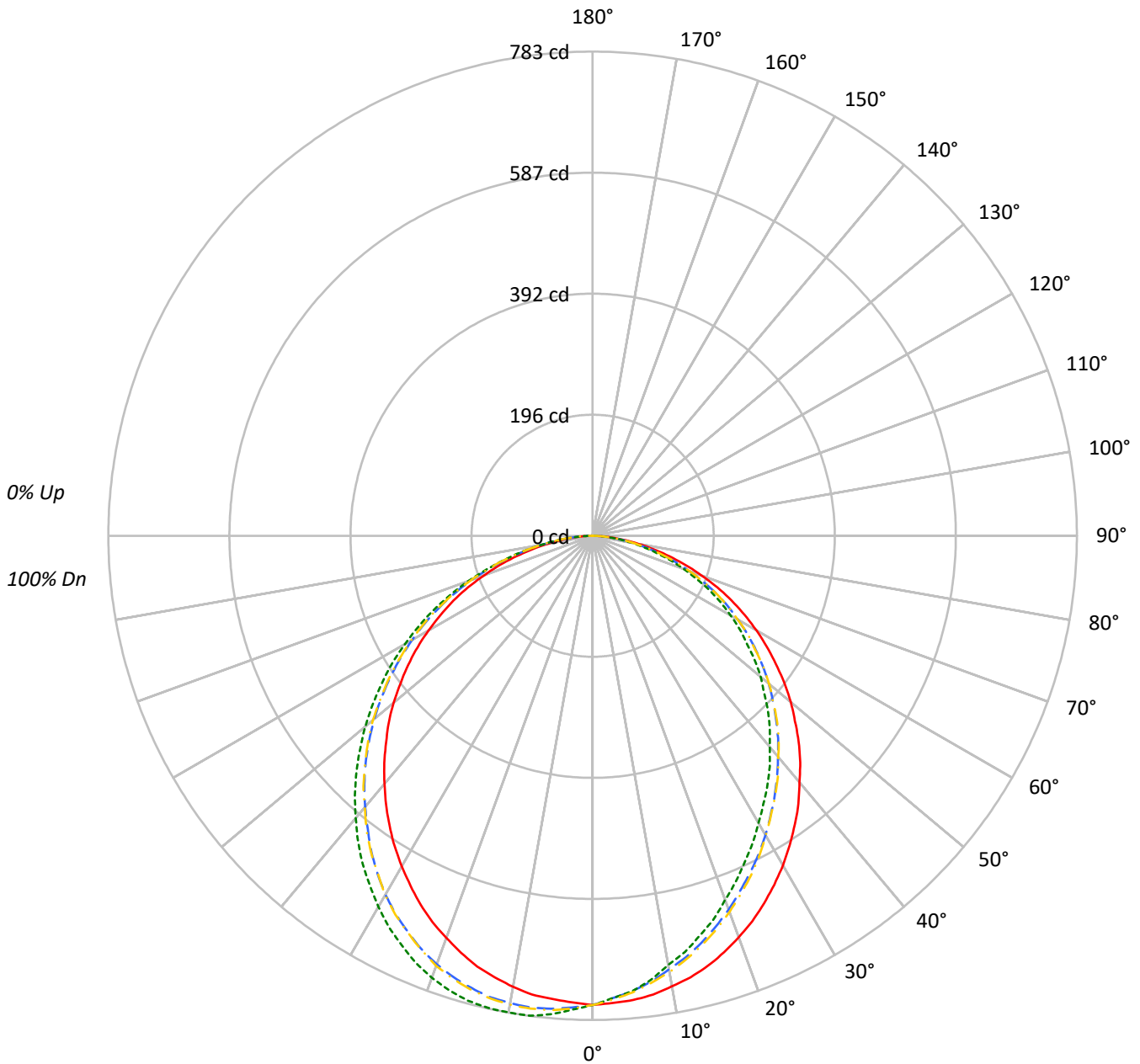
Lumens per Lamp: N/A
Luminaire Lumens: 2035.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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									
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	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°	7001	7001	7001	7001
5°	6980	6844	6964	7194
10°	6932	6602	6940	7334
15°	6878	6395	6888	7436
20°	6784	6152	6792	7467
25°	6676	5925	6701	7436
30°	6556	5716	6574	7379
35°	6419	5549	6448	7300
40°	6264	5364	6306	7175
45°	6148	5231	6160	7045
50°	6001	5088	6024	6887
55°	5812	4901	5853	6696
60°	5637	4751	5656	6462
65°	5414	4554	5414	6185
70°	5047	4214	5026	5765
75°	4591	3825	4527	5172
80°	3969	3284	3831	4426
85°	3091	2456	2911	3631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	3.5
10°-20°	203.5	10.0
20°-30°	302.5	14.9
30°-40°	356.5	17.5
40°-50°	363.0	17.8
50°-60°	323.4	15.9
60°-70°	243.6	12.0
70°-80°	135.5	6.7
80°-90°	35.2	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°	577.7	28.4
0°-40°	934.2	45.9
0°-60°	1620.6	79.6
0°-90°	2035.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2035.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	759	759	759	759	759	
5°	754	739	752	777	754	72
15°	720	670	721	778	720	203
25°	656	582	658	730	656	302
35°	570	493	572	648	570	357
45°	471	401	472	540	471	363
55°	361	305	364	416	361	324
65°	248	209	248	283	248	245
75°	129	107	127	145	129	137
85°	29	23	28	34	29	35
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°	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8
2.5°	756.2	756.2	757.0	753.7	749.4	747.6	746.8	745.9	747.6	748.4	747.6
5°	753.7	751.9	750.2	745.9	740.8	737.3	735.6	734.7	736.5	739.0	736.5
7.5°	748.4	745.1	741.6	735.6	729.6	724.4	721.9	720.1	721.9	724.4	722.7
10°	739.9	735.6	730.5	723.6	715.0	709.0	706.4	703.9	704.7	704.7	704.7
12.5°	731.3	725.3	719.3	710.7	701.2	694.4	690.1	686.7	688.4	689.3	689.3
15°	720.1	712.5	703.9	694.4	685.0	677.2	672.1	668.6	669.5	669.5	670.4
17.5°	706.4	697.9	689.3	678.1	666.9	658.3	652.4	648.1	649.7	650.6	651.5
20°	691.0	681.5	672.1	660.0	648.1	638.6	632.6	627.4	626.6	626.6	627.4
22.5°	674.7	664.3	653.2	640.3	627.4	617.1	611.1	606.0	605.2	605.2	606.0
25°	655.8	644.6	633.5	620.6	606.8	596.6	588.8	583.7	582.8	582.0	583.7
27.5°	636.0	624.9	613.8	600.9	586.3	575.9	568.2	563.1	561.3	560.5	562.2
30°	615.4	602.5	590.6	576.8	563.9	553.7	545.9	539.9	538.2	536.5	538.2
32.5°	593.1	580.2	567.4	553.7	540.8	530.5	522.7	516.8	515.0	514.1	515.9
35°	569.9	557.0	545.1	531.3	518.4	508.2	500.4	495.3	493.6	492.7	493.6
37.5°	546.7	533.9	521.9	508.2	495.3	485.0	477.2	472.1	471.2	470.4	471.2
40°	520.1	509.0	496.9	484.1	471.2	461.0	454.9	448.9	447.2	445.4	448.1
42.5°	496.9	485.8	473.9	461.8	448.9	438.6	431.8	426.6	424.9	424.0	424.9
45°	471.2	459.2	447.2	436.0	424.0	414.6	407.7	402.5	401.7	400.9	401.7
47.5°	443.8	433.5	423.2	412.0	400.0	390.6	384.5	379.4	377.7	376.0	377.7
50°	418.1	407.7	397.4	387.1	376.0	367.4	361.3	356.2	355.3	354.5	355.3
52.5°	390.6	380.2	370.8	360.5	351.0	342.4	336.5	332.2	331.3	330.5	331.3
55°	361.3	352.8	344.2	335.6	326.2	318.4	313.3	308.1	306.5	304.7	306.5
57.5°	333.9	326.2	317.6	309.0	300.4	293.6	288.4	284.1	283.3	282.4	283.3
60°	305.5	298.7	290.9	283.3	274.7	267.8	263.5	260.1	258.3	257.5	258.3
62.5°	277.2	270.4	264.4	256.6	248.9	243.7	239.4	236.1	234.3	233.5	234.3
65°	248.0	242.1	236.1	229.2	223.2	218.0	213.7	210.3	209.4	208.6	208.6
67.5°	218.0	212.9	207.8	201.7	194.9	189.7	185.4	182.8	182.0	181.1	182.0
70°	187.1	182.8	177.7	172.5	167.4	163.1	160.5	158.0	157.1	156.2	156.2
72.5°	158.0	154.5	150.2	145.9	141.6	137.3	134.8	133.1	132.2	131.3	131.3
75°	128.8	125.3	122.7	119.4	115.1	112.4	109.9	108.1	107.3	107.3	107.3
77.5°	101.3	98.7	96.2	92.7	90.1	87.6	85.8	85.0	84.1	84.1	84.1
80°	74.7	73.0	71.2	69.5	66.9	64.4	63.6	62.6	61.8	61.8	61.8
82.5°	50.7	49.8	48.0	46.4	44.7	43.7	42.9	42.1	42.1	42.1	42.1
85°	29.2	28.3	27.5	26.6	25.8	25.8	24.9	24.0	23.2	23.2	23.2
87.5°	12.1	12.1	12.1	11.1	10.3	10.3	10.3	10.3	10.3	10.3	10.3
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8
2.5°	745.9	747.6	749.4	751.9	754.5	757.0	756.2	755.4	758.8	763.1	764.0
5°	734.7	736.5	739.0	743.3	747.6	751.1	751.9	751.9	758.8	764.8	766.5
7.5°	721.1	723.6	727.0	731.3	737.3	742.5	745.1	748.4	755.4	763.1	766.5
10°	703.9	708.2	713.3	719.3	725.3	731.3	736.5	740.8	749.4	757.9	763.1
12.5°	688.4	692.6	697.9	704.7	712.5	720.1	725.3	731.3	741.6	751.9	757.9
15°	671.2	675.5	681.5	688.4	696.9	705.5	713.3	721.1	731.3	742.5	749.4
17.5°	652.4	656.7	662.6	671.2	680.7	690.1	698.7	707.3	719.3	731.3	739.0
20°	629.2	635.2	642.9	651.5	662.6	673.8	682.4	691.8	704.7	717.6	726.2
22.5°	606.8	612.8	621.4	631.7	643.8	655.8	666.1	676.4	690.1	703.0	712.5
25°	585.3	592.3	600.9	611.1	622.3	634.3	646.4	658.3	672.1	685.8	695.3
27.5°	563.9	569.9	578.5	588.8	601.7	613.8	625.7	637.8	652.4	666.9	677.2
30°	539.9	546.7	554.5	564.8	578.5	592.3	604.2	617.1	631.7	646.4	656.7
32.5°	517.6	523.6	531.3	541.6	555.3	569.1	582.0	595.7	609.5	624.0	634.3
35°	495.3	501.2	509.0	519.3	533.0	546.7	559.6	572.5	586.3	600.0	610.3
37.5°	472.9	479.0	486.7	496.9	509.8	523.6	535.6	548.5	562.2	575.9	585.3
40°	449.7	455.8	461.8	472.1	485.0	498.7	510.7	523.6	537.3	551.0	560.5
42.5°	426.6	432.6	440.3	450.7	462.6	474.7	486.7	498.7	511.6	524.4	533.9
45°	403.4	408.6	416.3	425.7	437.8	448.9	461.0	472.1	485.0	496.9	506.5
47.5°	379.4	384.5	390.6	400.0	412.0	424.0	436.0	447.2	458.3	470.4	479.0
50°	356.2	361.3	368.2	376.8	388.0	399.2	409.5	419.7	430.9	442.1	449.7
52.5°	332.2	337.3	343.4	351.9	361.3	371.7	381.1	391.4	401.7	412.0	419.7
55°	308.1	311.6	316.7	324.5	334.8	345.1	354.5	363.9	373.4	382.0	389.7
57.5°	284.1	288.4	294.4	301.3	309.8	318.4	327.0	335.6	344.2	352.8	359.6
60°	260.1	263.5	267.8	273.8	282.4	290.1	298.7	306.5	314.1	321.9	327.9
62.5°	235.1	238.6	242.9	248.9	255.8	262.6	270.4	277.2	284.1	290.9	297.0
65°	209.4	212.9	217.2	222.3	228.3	234.3	241.2	248.0	253.2	258.3	264.4
67.5°	182.8	186.3	190.6	194.9	200.0	206.0	212.0	218.0	223.2	228.3	232.6
70°	157.1	159.6	163.9	167.4	171.7	176.0	181.1	186.3	189.7	194.0	199.2
72.5°	132.2	134.8	138.2	141.6	144.2	147.7	152.8	157.1	161.4	166.6	169.1
75°	108.1	109.9	112.4	115.1	117.6	120.2	123.6	127.0	130.5	133.1	136.5
77.5°	84.1	85.8	88.4	90.1	91.9	93.6	96.2	98.7	101.3	103.0	106.5
80°	61.8	63.6	65.2	66.9	68.7	70.4	71.2	72.1	75.5	78.1	79.8
82.5°	42.1	42.9	43.7	45.5	46.4	47.2	48.0	48.0	49.8	51.5	54.1
85°	24.0	24.9	25.8	25.8	25.8	25.8	26.6	27.5	28.3	30.0	31.8
87.5°	9.4	9.4	10.3	10.3	10.3	10.3	10.3	10.3	11.1	12.9	13.7
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°	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8	758.8
2.5°	763.1	764.0	765.6	766.5	767.3	767.3	768.3	769.1	767.3	765.6	764.8
5°	767.3	768.3	770.8	773.4	775.1	776.8	775.9	775.1	773.4	770.8	769.1
7.5°	768.3	770.8	773.4	776.8	779.4	782.8	781.1	779.4	775.9	772.6	769.9
10°	765.6	769.1	773.4	777.7	780.2	782.8	781.1	779.4	775.9	771.6	768.3
12.5°	762.2	766.5	771.6	775.9	778.5	782.0	779.4	776.8	772.6	768.3	764.0
15°	754.5	759.7	765.6	770.8	775.1	778.5	775.9	774.2	769.1	763.1	757.0
17.5°	745.1	751.9	757.9	764.0	767.3	770.8	769.1	767.3	761.3	754.5	747.6
20°	733.9	740.8	746.8	752.7	757.0	760.5	757.9	755.4	749.4	743.3	736.5
22.5°	720.1	727.0	733.9	739.9	744.1	747.6	744.1	739.9	733.9	727.9	721.1
25°	703.0	710.7	718.4	724.4	727.0	730.5	727.0	723.6	717.6	711.5	703.9
27.5°	685.8	693.6	701.2	707.3	709.8	713.3	709.8	706.4	700.4	694.4	686.7
30°	666.1	673.8	681.5	687.5	690.1	692.6	689.3	685.8	680.7	674.7	666.9
32.5°	643.8	651.5	657.5	663.5	666.9	670.4	666.9	664.3	658.3	650.6	642.9
35°	619.7	627.4	635.2	641.1	644.6	648.1	643.8	639.5	634.3	628.3	621.4
37.5°	593.1	601.7	610.3	617.1	619.7	623.2	619.7	615.4	610.3	604.2	596.6
40°	568.2	575.9	583.7	590.6	593.1	595.7	592.3	588.8	582.8	576.8	569.1
42.5°	542.5	550.2	557.0	563.1	565.6	569.1	565.6	561.3	557.0	551.9	545.1
45°	515.0	522.7	528.7	534.8	537.3	539.9	536.5	532.2	527.9	523.6	516.8
47.5°	486.7	493.6	499.6	505.5	507.3	509.8	506.5	503.9	499.6	495.3	489.3
50°	457.5	464.4	470.4	475.5	477.2	479.8	476.4	472.9	469.6	466.1	461.0
52.5°	427.5	433.5	439.5	444.6	446.4	448.1	444.6	441.2	437.8	434.3	429.2
55°	396.6	402.5	408.6	412.8	414.6	416.3	412.8	410.3	406.8	404.3	399.2
57.5°	365.6	371.7	376.8	381.1	382.8	384.5	381.1	377.7	375.1	372.5	368.2
60°	333.9	339.9	344.2	347.7	349.4	350.2	346.7	344.2	342.4	340.8	336.5
62.5°	303.0	307.3	311.6	314.1	315.9	316.7	314.1	312.4	310.8	309.0	305.5
65°	270.4	275.5	279.0	281.5	282.4	283.3	280.7	279.0	277.2	275.5	272.9
67.5°	237.8	242.1	244.6	247.2	248.0	248.0	248.0	247.2	245.5	242.9	240.4
70°	205.1	208.6	211.1	212.9	213.7	213.7	212.0	210.3	210.3	209.4	207.8
72.5°	171.7	174.2	176.0	177.7	177.7	177.7	177.7	178.5	177.7	176.0	173.4
75°	139.9	142.5	144.2	145.1	145.1	145.1	145.1	145.9	145.1	144.2	142.5
77.5°	109.9	111.6	112.4	113.3	113.3	113.3	114.1	115.1	114.1	113.3	112.4
80°	81.5	82.4	83.3	84.1	83.3	83.3	84.1	85.8	85.0	84.1	83.3
82.5°	55.8	56.6	57.5	57.5	58.4	59.3	59.3	59.3	59.3	58.4	57.5
85°	33.5	34.3	34.3	34.3	34.3	34.3	35.2	36.1	36.1	35.2	35.2
87.5°	15.4	16.4	15.4	14.6	13.7	13.7	15.4	17.2	17.2	16.4	16.4
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):

	330°	340°	350°	360°
0°	758.8	758.8	758.8	758.8
2.5°	765.6	764.8	760.5	756.2
5°	768.3	765.6	759.7	753.7
7.5°	768.3	764.8	756.2	748.4
10°	764.0	758.8	749.4	739.9
12.5°	758.8	752.7	741.6	731.3
15°	751.1	744.1	732.2	720.1
17.5°	739.9	731.3	719.3	706.4
20°	728.7	719.3	704.7	691.0
22.5°	713.3	704.7	689.3	674.7
25°	696.1	686.7	671.2	655.8
27.5°	678.1	666.9	651.5	636.0
30°	657.5	646.4	630.9	615.4
32.5°	635.2	624.9	609.5	593.1
35°	612.8	601.7	586.3	569.9
37.5°	588.0	577.7	562.2	546.7
40°	561.3	551.0	535.6	520.1
42.5°	536.5	527.0	511.6	496.9
45°	509.0	499.6	485.0	471.2
47.5°	480.7	471.2	457.5	443.8
50°	453.2	443.8	430.9	418.1
52.5°	422.4	414.6	402.5	390.6
55°	392.3	384.5	372.5	361.3
57.5°	362.3	355.3	344.2	333.9
60°	330.5	323.6	315.1	305.5
62.5°	300.4	294.4	285.8	277.2
65°	268.7	263.5	255.8	248.0
67.5°	236.1	231.8	224.9	218.0
70°	203.5	198.2	193.1	187.1
72.5°	170.9	168.2	163.1	158.0
75°	139.9	137.3	133.1	128.8
77.5°	110.8	108.1	104.7	101.3
80°	81.5	79.8	77.3	74.7
82.5°	56.6	55.0	53.2	50.7
85°	34.3	32.6	30.9	29.2
87.5°	15.4	14.6	12.9	12.1
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)