

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: P735588

Luminaire Tested: **4APN6-24-B2750-W2D-CP125-2700K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735588
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-CP125-2700K
Description: 4FT 2400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 2700K CCT, AND CP125 LENS

Light Source: -
Ballast/Driver: -

Summary

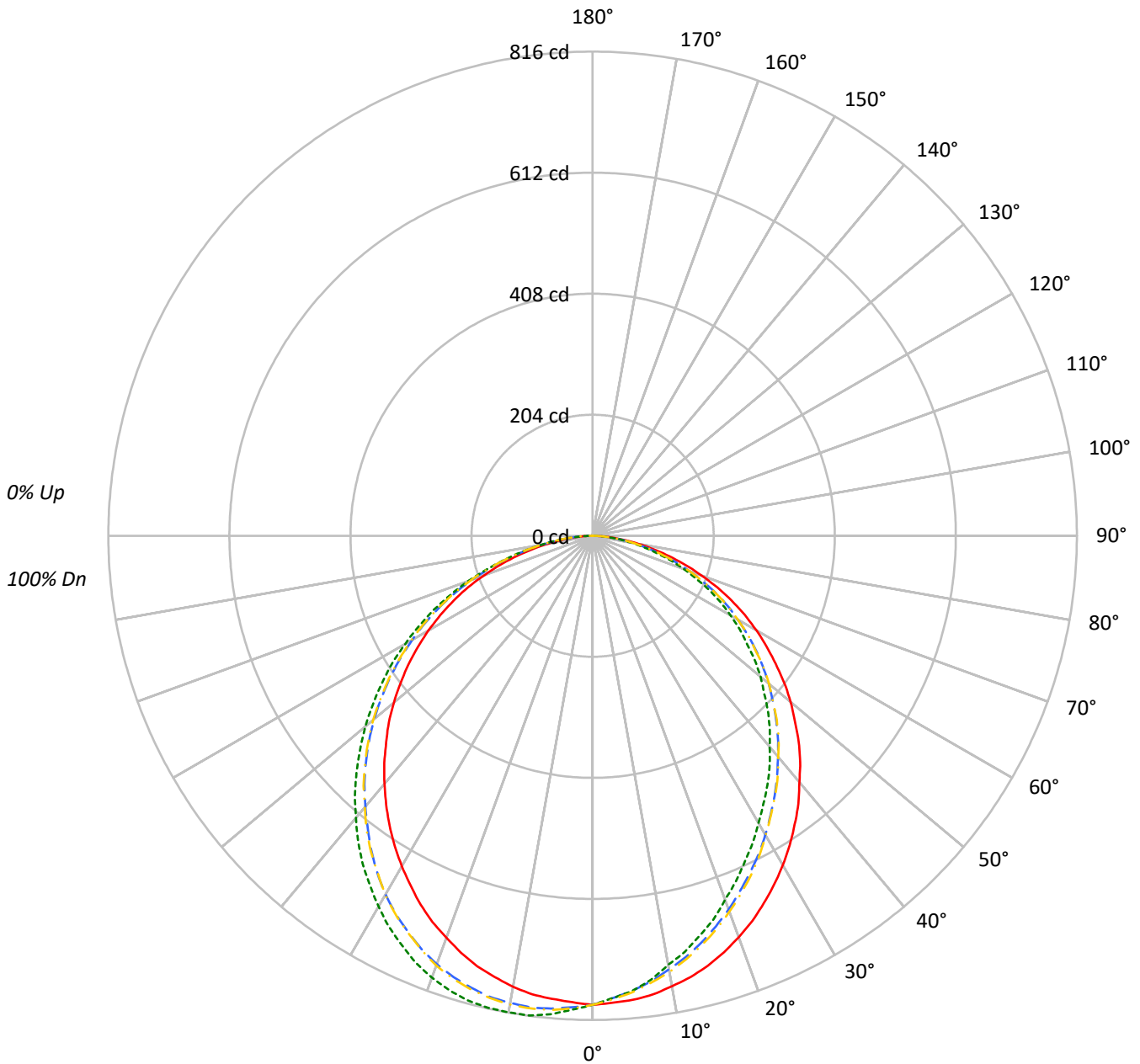
Lumens per Lamp: N/A
Luminaire Lumens: 2120.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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°	7293	7293	7293	7293
5°	7271	7130	7254	7495
10°	7221	6877	7230	7640
15°	7166	6662	7175	7746
20°	7068	6409	7076	7779
25°	6954	6172	6981	7747
30°	6830	5954	6849	7688
35°	6687	5780	6717	7605
40°	6527	5590	6570	7473
45°	6405	5449	6417	7338
50°	6251	5301	6275	7174
55°	6055	5107	6098	6976
60°	5873	4951	5892	6731
65°	5641	4744	5641	6442
70°	5258	4392	5236	6005
75°	4780	3985	4716	5390
80°	4134	3422	3995	4612
85°	3218	2562	3028	3790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	3.5
10°-20°	212.0	10.0
20°-30°	315.1	14.9
30°-40°	371.4	17.5
40°-50°	378.2	17.8
50°-60°	336.9	15.9
60°-70°	253.8	12.0
70°-80°	141.2	6.7
80°-90°	36.7	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°	601.8	28.4
0°-40°	973.2	45.9
0°-60°	1688.3	79.6
0°-90°	2120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2120.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	790	790	790	790	790	
5°	785	770	783	809	785	74
15°	750	698	751	811	750	211
25°	683	606	686	761	683	315
35°	594	513	596	675	594	371
45°	491	418	492	562	491	378
55°	376	318	379	434	376	337
65°	258	217	258	295	258	255
75°	134	112	132	151	134	143
85°	30	24	29	36	30	37
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°	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5
2.5°	787.8	787.8	788.6	785.1	780.7	778.8	778.0	777.0	778.8	779.7	778.8
5°	785.1	783.3	781.5	777.0	771.7	768.1	766.3	765.4	767.2	769.9	767.2
7.5°	779.7	776.2	772.6	766.3	760.1	754.7	752.0	750.2	752.0	754.7	752.9
10°	770.8	766.3	761.0	753.8	744.9	738.6	735.9	733.3	734.1	734.1	734.1
12.5°	761.8	755.6	749.4	740.4	730.5	723.4	718.9	715.4	717.1	718.1	718.1
15°	750.2	742.2	733.3	723.4	713.6	705.5	700.2	696.6	697.5	697.5	698.4
17.5°	735.9	727.0	718.1	706.5	694.7	685.8	679.6	675.2	676.9	677.8	678.7
20°	719.9	710.0	700.2	687.6	675.2	665.3	659.0	653.7	652.8	652.8	653.7
22.5°	702.8	692.1	680.5	667.1	653.7	642.9	636.6	631.3	630.4	630.4	631.3
25°	683.1	671.5	659.9	646.5	632.1	621.5	613.4	608.1	607.1	606.3	608.1
27.5°	662.6	651.0	639.4	626.0	610.8	600.0	591.9	586.6	584.8	583.9	585.7
30°	641.1	627.7	615.2	600.9	587.4	576.8	568.7	562.4	560.7	558.9	560.7
32.5°	617.9	604.5	591.1	576.8	563.4	552.6	544.5	538.4	536.5	535.6	537.4
35°	593.7	580.3	567.8	553.5	540.1	529.4	521.3	516.0	514.2	513.2	514.2
37.5°	569.6	556.2	543.7	529.4	516.0	505.3	497.2	491.8	490.9	490.0	490.9
40°	541.9	530.3	517.7	504.3	490.9	480.2	474.0	467.7	465.9	464.1	466.8
42.5°	517.7	506.1	493.6	481.1	467.7	456.9	449.8	444.5	442.7	441.7	442.7
45°	490.9	478.4	465.9	454.3	441.7	431.9	424.8	419.3	418.5	417.6	418.5
47.5°	462.3	451.6	440.8	429.2	416.7	406.9	400.6	395.3	393.5	391.7	393.5
50°	435.5	424.8	414.0	403.3	391.7	382.7	376.4	371.1	370.2	369.3	370.2
52.5°	406.9	396.1	386.3	375.6	365.7	356.7	350.6	346.1	345.1	344.3	345.1
55°	376.4	367.5	358.6	349.6	339.8	331.7	326.4	321.0	319.3	317.5	319.3
57.5°	347.8	339.8	330.9	321.9	313.0	305.9	300.4	296.0	295.1	294.1	295.1
60°	318.3	311.2	303.1	295.1	286.2	279.0	274.6	270.9	269.1	268.3	269.1
62.5°	288.8	281.7	275.4	267.3	259.3	253.9	249.4	245.9	244.1	243.3	244.1
65°	258.4	252.2	245.9	238.8	232.5	227.1	222.6	219.1	218.1	217.3	217.3
67.5°	227.1	221.8	216.4	210.1	203.0	197.6	193.1	190.5	189.6	188.6	189.6
70°	194.9	190.5	185.1	179.7	174.4	169.9	167.2	164.6	163.6	162.8	162.8
72.5°	164.6	161.0	156.5	152.0	147.6	143.1	140.4	138.6	137.8	136.8	136.8
75°	134.1	130.5	127.9	124.3	119.9	117.1	114.4	112.6	111.8	111.8	111.8
77.5°	105.5	102.8	100.2	96.6	93.9	91.2	89.4	88.6	87.6	87.6	87.6
80°	77.8	76.0	74.2	72.4	69.7	67.1	66.2	65.3	64.4	64.4	64.4
82.5°	52.8	51.8	50.0	48.3	46.5	45.6	44.7	43.9	43.9	43.9	43.9
85°	30.4	29.5	28.6	27.7	26.8	26.8	26.0	25.0	24.2	24.2	24.2
87.5°	12.6	12.6	12.6	11.6	10.8	10.8	10.8	10.8	10.8	10.8	10.8
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°	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5
2.5°	777.0	778.8	780.7	783.3	786.0	788.6	787.8	786.9	790.5	794.9	795.9
5°	765.4	767.2	769.9	774.4	778.8	782.5	783.3	783.3	790.5	796.7	798.5
7.5°	751.2	753.8	757.3	761.8	768.1	773.5	776.2	779.7	786.9	794.9	798.5
10°	733.3	737.8	743.1	749.4	755.6	761.8	767.2	771.7	780.7	789.6	794.9
12.5°	717.1	721.6	727.0	734.1	742.2	750.2	755.6	761.8	772.6	783.3	789.6
15°	699.2	703.7	710.0	717.1	726.0	735.0	743.1	751.2	761.8	773.5	780.7
17.5°	679.6	684.1	690.3	699.2	709.1	718.9	727.9	736.8	749.4	761.8	769.9
20°	655.5	661.7	669.7	678.7	690.3	702.0	710.9	720.7	734.1	747.6	756.5
22.5°	632.1	638.4	647.4	658.1	670.7	683.1	693.9	704.6	718.9	732.3	742.2
25°	609.8	617.0	626.0	636.6	648.3	660.8	673.3	685.8	700.2	714.4	724.3
27.5°	587.4	593.7	602.7	613.4	626.8	639.4	651.8	664.4	679.6	694.7	705.5
30°	562.4	569.6	577.6	588.4	602.7	617.0	629.5	642.9	658.1	673.3	684.1
32.5°	539.2	545.5	553.5	564.2	578.5	592.9	606.3	620.5	634.9	650.0	660.8
35°	516.0	522.2	530.3	541.0	555.3	569.6	583.0	596.4	610.8	625.0	635.8
37.5°	492.7	499.0	507.1	517.7	531.1	545.5	557.9	571.4	585.7	600.0	609.8
40°	468.5	474.8	481.1	491.8	505.3	519.5	532.1	545.5	559.8	574.0	583.9
42.5°	444.5	450.6	458.7	469.5	481.9	494.5	507.1	519.5	532.9	546.3	556.2
45°	420.3	425.6	433.7	443.5	456.1	467.7	480.2	491.8	505.3	517.7	527.6
47.5°	395.3	400.6	406.9	416.7	429.2	441.7	454.3	465.9	477.5	490.0	499.0
50°	371.1	376.4	383.6	392.5	404.2	415.8	426.6	437.2	448.9	460.5	468.5
52.5°	346.1	351.4	357.7	366.6	376.4	387.2	397.0	407.7	418.5	429.2	437.2
55°	321.0	324.6	329.9	338.0	348.8	359.5	369.3	379.1	389.0	397.9	405.9
57.5°	296.0	300.4	306.7	313.8	322.8	331.7	340.7	349.6	358.6	367.5	374.6
60°	270.9	274.6	279.0	285.2	294.1	302.2	311.2	319.3	327.3	335.3	341.6
62.5°	245.0	248.6	253.1	259.3	266.5	273.6	281.7	288.8	296.0	303.1	309.4
65°	218.1	221.8	226.2	231.5	237.8	244.1	251.2	258.4	263.8	269.1	275.4
67.5°	190.5	194.1	198.5	203.0	208.3	214.6	220.9	227.1	232.5	237.8	242.3
70°	163.6	166.3	170.8	174.4	178.8	183.3	188.6	194.1	197.6	202.1	207.5
72.5°	137.8	140.4	143.9	147.6	150.2	153.8	159.2	163.6	168.1	173.5	176.2
75°	112.6	114.4	117.1	119.9	122.5	125.2	128.8	132.3	135.9	138.6	142.2
77.5°	87.6	89.4	92.1	93.9	95.7	97.5	100.2	102.8	105.5	107.3	110.9
80°	64.4	66.2	67.9	69.7	71.5	73.3	74.2	75.2	78.7	81.3	83.1
82.5°	43.9	44.7	45.6	47.4	48.3	49.2	50.0	50.0	51.8	53.7	56.3
85°	25.0	26.0	26.8	26.8	26.8	26.8	27.7	28.6	29.5	31.3	33.1
87.5°	9.8	9.8	10.8	10.8	10.8	10.8	10.8	10.8	11.6	13.4	14.3
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5	790.5
2.5°	794.9	795.9	797.6	798.5	799.4	799.4	800.4	801.2	799.4	797.6	796.7
5°	799.4	800.4	803.0	805.7	807.5	809.3	808.3	807.5	805.7	803.0	801.2
7.5°	800.4	803.0	805.7	809.3	812.0	815.5	813.8	812.0	808.3	804.8	802.1
10°	797.6	801.2	805.7	810.1	812.8	815.5	813.8	812.0	808.3	803.9	800.4
12.5°	794.1	798.5	803.9	808.3	811.0	814.6	812.0	809.3	804.8	800.4	795.9
15°	786.0	791.4	797.6	803.0	807.5	811.0	808.3	806.5	801.2	794.9	788.6
17.5°	776.2	783.3	789.6	795.9	799.4	803.0	801.2	799.4	793.1	786.0	778.8
20°	764.6	771.7	778.0	784.2	788.6	792.3	789.6	786.9	780.7	774.4	767.2
22.5°	750.2	757.3	764.6	770.8	775.2	778.8	775.2	770.8	764.6	758.3	751.2
25°	732.3	740.4	748.4	754.7	757.3	761.0	757.3	753.8	747.6	741.3	733.3
27.5°	714.4	722.5	730.5	736.8	739.5	743.1	739.5	735.9	729.7	723.4	715.4
30°	693.9	702.0	710.0	716.3	718.9	721.6	718.1	714.4	709.1	702.8	694.7
32.5°	670.7	678.7	685.0	691.2	694.7	698.4	694.7	692.1	685.8	677.8	669.7
35°	645.6	653.7	661.7	667.9	671.5	675.2	670.7	666.2	660.8	654.5	647.4
37.5°	617.9	626.8	635.8	642.9	645.6	649.2	645.6	641.1	635.8	629.5	621.5
40°	591.9	600.0	608.1	615.2	617.9	620.5	617.0	613.4	607.1	600.9	592.9
42.5°	565.2	573.2	580.3	586.6	589.2	592.9	589.2	584.8	580.3	575.0	567.8
45°	536.5	544.5	550.8	557.1	559.8	562.4	558.9	554.4	550.0	545.5	538.4
47.5°	507.1	514.2	520.5	526.6	528.5	531.1	527.6	524.9	520.5	516.0	509.7
50°	476.6	483.7	490.0	495.4	497.2	499.8	496.3	492.7	489.2	485.6	480.2
52.5°	445.3	451.6	457.9	463.2	465.0	466.8	463.2	459.6	456.1	452.4	447.1
55°	413.2	419.3	425.6	430.1	431.9	433.7	430.1	427.4	423.8	421.1	415.8
57.5°	380.9	387.2	392.5	397.0	398.8	400.6	397.0	393.5	390.8	388.0	383.6
60°	347.8	354.1	358.6	362.2	364.0	364.8	361.2	358.6	356.7	355.0	350.6
62.5°	315.6	320.1	324.6	327.3	329.1	329.9	327.3	325.4	323.7	321.9	318.3
65°	281.7	287.0	290.6	293.3	294.1	295.1	292.4	290.6	288.8	287.0	284.4
67.5°	247.7	252.2	254.9	257.5	258.4	258.4	258.4	257.5	255.7	253.1	250.4
70°	213.7	217.3	219.9	221.8	222.6	222.6	220.9	219.1	219.1	218.1	216.4
72.5°	178.8	181.5	183.3	185.1	185.1	185.1	185.1	186.0	185.1	183.3	180.7
75°	145.7	148.4	150.2	151.2	151.2	151.2	151.2	152.0	151.2	150.2	148.4
77.5°	114.4	116.3	117.1	118.1	118.1	118.1	118.9	119.9	118.9	118.1	117.1
80°	85.0	85.8	86.8	87.6	86.8	86.8	87.6	89.4	88.6	87.6	86.8
82.5°	58.1	59.0	59.9	59.9	60.8	61.7	61.7	61.7	61.7	60.8	59.9
85°	34.9	35.8	35.8	35.8	35.8	35.8	36.6	37.6	37.6	36.6	36.6
87.5°	16.1	17.0	16.1	15.2	14.3	14.3	16.1	17.9	17.9	17.0	17.0
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):

	330°	340°	350°	360°
0°	790.5	790.5	790.5	790.5
2.5°	797.6	796.7	792.3	787.8
5°	800.4	797.6	791.4	785.1
7.5°	800.4	796.7	787.8	779.7
10°	795.9	790.5	780.7	770.8
12.5°	790.5	784.2	772.6	761.8
15°	782.5	775.2	762.8	750.2
17.5°	770.8	761.8	749.4	735.9
20°	759.2	749.4	734.1	719.9
22.5°	743.1	734.1	718.1	702.8
25°	725.2	715.4	699.2	683.1
27.5°	706.5	694.7	678.7	662.6
30°	685.0	673.3	657.3	641.1
32.5°	661.7	651.0	634.9	617.9
35°	638.4	626.8	610.8	593.7
37.5°	612.6	601.8	585.7	569.6
40°	584.8	574.0	557.9	541.9
42.5°	558.9	549.0	532.9	517.7
45°	530.3	520.5	505.3	490.9
47.5°	500.8	490.9	476.6	462.3
50°	472.1	462.3	448.9	435.5
52.5°	440.0	431.9	419.3	406.9
55°	408.7	400.6	388.0	376.4
57.5°	377.4	370.2	358.6	347.8
60°	344.3	337.2	328.2	318.3
62.5°	313.0	306.7	297.8	288.8
65°	279.9	274.6	266.5	258.4
67.5°	245.9	241.4	234.3	227.1
70°	212.0	206.5	201.2	194.9
72.5°	178.0	175.2	169.9	164.6
75°	145.7	143.1	138.6	134.1
77.5°	115.4	112.6	109.1	105.5
80°	85.0	83.1	80.5	77.8
82.5°	59.0	57.3	55.5	52.8
85°	35.8	34.0	32.2	30.4
87.5°	16.1	15.2	13.4	12.6
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)