

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: P735573

Luminaire Tested: **4APN6-19-B2750-W2D-CP125-2700K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735573
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: 4APN6-19-B2750-W2D-CP125-2700K
Description: 4FT 1900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 2700K CCT, AND CP125 LENS

Light Source: -
Ballast/Driver: -

Summary

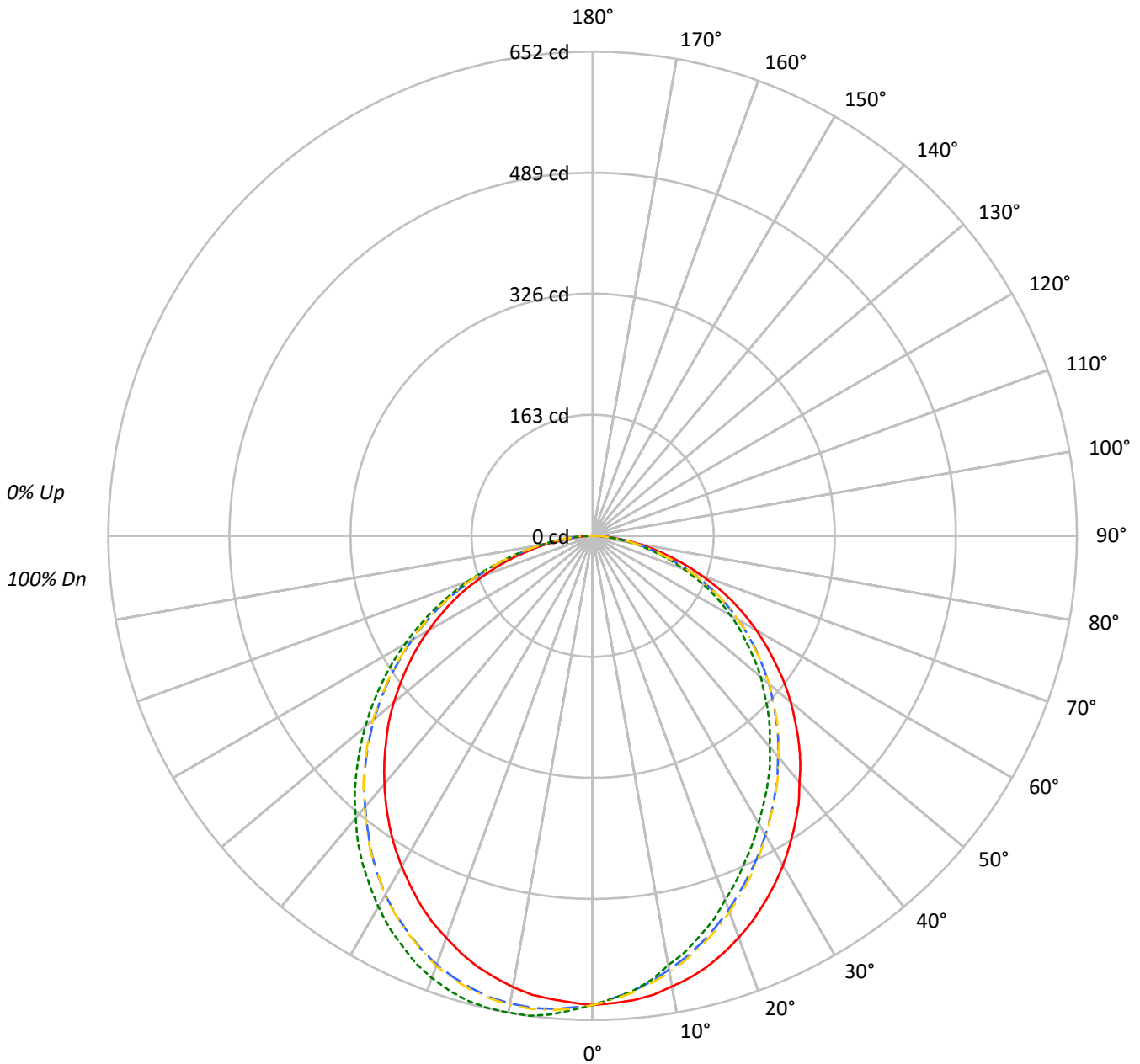
Lumens per Lamp: N/A
Luminaire Lumens: 1695.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19
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°	5831	5831	5831	5831
5°	5813	5701	5800	5993
10°	5773	5499	5780	6108
15°	5729	5327	5737	6193
20°	5651	5124	5657	6219
25°	5560	4934	5582	6194
30°	5461	4761	5476	6146
35°	5347	4621	5370	6080
40°	5217	4468	5252	5975
45°	5121	4357	5130	5868
50°	4998	4239	5018	5736
55°	4842	4082	4875	5578
60°	4696	3958	4711	5383
65°	4510	3792	4510	5150
70°	4203	3510	4187	4802
75°	3821	3187	3771	4310
80°	3305	2736	3193	3687
85°	2572	2043	2424	3028



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.7	3.5
10°-20°	169.5	10.0
20°-30°	252.0	14.9
30°-40°	297.0	17.5
40°-50°	302.4	17.8
50°-60°	269.4	15.9
60°-70°	202.9	12.0
70°-80°	112.9	6.7
80°-90°	29.3	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°	481.2	28.4
0°-40°	778.1	45.9
0°-60°	1349.9	79.6
0°-90°	1695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1695.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	632	632	632	632	632	
5°	628	616	626	647	628	60
15°	600	558	601	648	600	169
25°	546	485	548	608	546	252
35°	475	410	477	540	475	297
45°	392	334	393	450	392	302
55°	301	254	303	347	301	270
65°	207	174	207	236	207	204
75°	107	89	106	121	107	114
85°	24	19	23	29	24	29
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°	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
2.5°	629.9	629.9	630.5	627.7	624.2	622.7	622.0	621.3	622.7	623.4	622.7
5°	627.7	626.3	624.8	621.3	617.0	614.1	612.7	612.0	613.4	615.6	613.4
7.5°	623.4	620.6	617.7	612.7	607.7	603.4	601.3	599.8	601.3	603.4	601.9
10°	616.2	612.7	608.4	602.7	595.6	590.5	588.4	586.3	587.0	587.0	587.0
12.5°	609.1	604.2	599.1	592.0	584.1	578.4	574.8	572.0	573.3	574.1	574.1
15°	599.8	593.4	586.3	578.4	570.5	564.1	559.8	556.9	557.7	557.7	558.4
17.5°	588.4	581.3	574.1	564.8	555.5	548.3	543.4	539.8	541.2	541.9	542.6
20°	575.6	567.6	559.8	549.8	539.8	531.9	526.9	522.6	521.9	521.9	522.6
22.5°	561.9	553.3	544.1	533.3	522.6	514.0	509.0	504.7	504.1	504.1	504.7
25°	546.2	536.9	527.6	516.9	505.4	496.9	490.4	486.2	485.4	484.7	486.2
27.5°	529.8	520.5	511.2	500.5	488.3	479.7	473.2	469.0	467.5	466.9	468.3
30°	512.6	501.8	491.9	480.4	469.7	461.2	454.7	449.7	448.3	446.9	448.3
32.5°	494.0	483.3	472.6	461.2	450.4	441.8	435.4	430.4	429.0	428.2	429.7
35°	474.7	464.0	454.0	442.5	431.8	423.3	416.8	412.6	411.1	410.3	411.1
37.5°	455.4	444.7	434.7	423.3	412.6	404.0	397.5	393.2	392.5	391.8	392.5
40°	433.2	424.0	413.9	403.2	392.5	384.0	378.9	373.9	372.5	371.0	373.2
42.5°	413.9	404.6	394.7	384.6	373.9	365.3	359.6	355.4	353.9	353.1	353.9
45°	392.5	382.5	372.5	363.2	353.1	345.3	339.6	335.3	334.6	333.9	334.6
47.5°	369.7	361.1	352.5	343.2	333.1	325.3	320.3	316.0	314.6	313.1	314.6
50°	348.2	339.6	331.0	322.4	313.1	306.0	301.0	296.7	295.9	295.3	295.9
52.5°	325.3	316.7	308.9	300.3	292.4	285.2	280.3	276.7	275.9	275.3	275.9
55°	301.0	293.8	286.7	279.5	271.7	265.2	261.0	256.6	255.3	253.8	255.3
57.5°	278.1	271.7	264.5	257.4	250.2	244.5	240.2	236.6	235.9	235.2	235.9
60°	254.5	248.8	242.3	235.9	228.8	223.1	219.5	216.6	215.2	214.5	215.2
62.5°	230.9	225.2	220.2	213.7	207.3	203.0	199.4	196.6	195.2	194.5	195.2
65°	206.6	201.6	196.6	190.9	185.9	181.6	178.0	175.2	174.4	173.7	173.7
67.5°	181.6	177.3	173.0	168.0	162.3	158.0	154.4	152.3	151.6	150.8	151.6
70°	155.8	152.3	148.0	143.7	139.4	135.8	133.7	131.6	130.8	130.1	130.1
72.5°	131.6	128.7	125.1	121.5	118.0	114.4	112.3	110.8	110.1	109.4	109.4
75°	107.2	104.4	102.2	99.4	95.8	93.6	91.5	90.1	89.4	89.4	89.4
77.5°	84.4	82.2	80.1	77.2	75.1	72.9	71.5	70.8	70.1	70.1	70.1
80°	62.2	60.8	59.3	57.9	55.8	53.6	52.9	52.2	51.5	51.5	51.5
82.5°	42.2	41.5	40.0	38.6	37.2	36.4	35.7	35.1	35.1	35.1	35.1
85°	24.3	23.6	22.9	22.1	21.4	21.4	20.8	20.0	19.3	19.3	19.3
87.5°	10.0	10.0	10.0	9.3	8.6	8.6	8.6	8.6	8.6	8.6	8.6
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
2.5°	621.3	622.7	624.2	626.3	628.4	630.5	629.9	629.2	632.0	635.6	636.3
5°	612.0	613.4	615.6	619.1	622.7	625.6	626.3	626.3	632.0	637.0	638.5
7.5°	600.6	602.7	605.5	609.1	614.1	618.5	620.6	623.4	629.2	635.6	638.5
10°	586.3	589.9	594.1	599.1	604.2	609.1	613.4	617.0	624.2	631.3	635.6
12.5°	573.3	576.9	581.3	587.0	593.4	599.8	604.2	609.1	617.7	626.3	631.3
15°	559.0	562.6	567.6	573.3	580.5	587.6	594.1	600.6	609.1	618.5	624.2
17.5°	543.4	547.0	551.9	559.0	567.0	574.8	581.9	589.1	599.1	609.1	615.6
20°	524.1	529.1	535.5	542.6	551.9	561.3	568.4	576.2	587.0	597.7	604.8
22.5°	505.4	510.4	517.6	526.2	536.2	546.2	554.8	563.4	574.8	585.5	593.4
25°	487.5	493.3	500.5	509.0	518.4	528.3	538.4	548.3	559.8	571.2	579.1
27.5°	469.7	474.7	481.8	490.4	501.2	511.2	521.2	531.2	543.4	555.5	564.1
30°	449.7	455.4	461.8	470.4	481.8	493.3	503.3	514.0	526.2	538.4	547.0
32.5°	431.1	436.1	442.5	451.1	462.5	474.0	484.7	496.1	507.6	519.7	528.3
35°	412.6	417.5	424.0	432.6	444.0	455.4	466.1	476.8	488.3	499.7	508.3
37.5°	393.9	398.9	405.4	413.9	424.6	436.1	446.1	456.8	468.3	479.7	487.5
40°	374.6	379.6	384.6	393.2	404.0	415.4	425.4	436.1	447.5	458.9	466.9
42.5°	355.4	360.3	366.8	375.4	385.3	395.4	405.4	415.4	426.1	436.8	444.7
45°	336.0	340.3	346.8	354.6	364.6	373.9	384.0	393.2	404.0	413.9	421.8
47.5°	316.0	320.3	325.3	333.1	343.2	353.1	363.2	372.5	381.7	391.8	398.9
50°	296.7	301.0	306.7	313.8	323.2	332.5	341.1	349.6	358.9	368.2	374.6
52.5°	276.7	281.0	286.0	293.1	301.0	309.6	317.4	326.0	334.6	343.2	349.6
55°	256.6	259.5	263.8	270.2	278.8	287.4	295.3	303.1	311.0	318.2	324.5
57.5°	236.6	240.2	245.2	250.9	258.1	265.2	272.4	279.5	286.7	293.8	299.5
60°	216.6	219.5	223.1	228.0	235.2	241.6	248.8	255.3	261.6	268.1	273.1
62.5°	195.9	198.7	202.3	207.3	213.0	218.7	225.2	230.9	236.6	242.3	247.3
65°	174.4	177.3	180.9	185.1	190.2	195.2	200.9	206.6	210.9	215.2	220.2
67.5°	152.3	155.2	158.7	162.3	166.6	171.6	176.6	181.6	185.9	190.2	193.7
70°	130.8	133.0	136.5	139.4	143.0	146.6	150.8	155.2	158.0	161.6	165.9
72.5°	110.1	112.3	115.1	118.0	120.1	123.0	127.2	130.8	134.4	138.7	140.9
75°	90.1	91.5	93.6	95.8	98.0	100.1	103.0	105.8	108.7	110.8	113.7
77.5°	70.1	71.5	73.6	75.1	76.5	78.0	80.1	82.2	84.4	85.8	88.7
80°	51.5	52.9	54.3	55.8	57.2	58.6	59.3	60.1	62.9	65.0	66.5
82.5°	35.1	35.7	36.4	37.9	38.6	39.3	40.0	40.0	41.5	42.9	45.0
85°	20.0	20.8	21.4	21.4	21.4	21.4	22.1	22.9	23.6	25.0	26.5
87.5°	7.8	7.8	8.6	8.6	8.6	8.6	8.6	8.6	9.3	10.7	11.4
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
2.5°	635.6	636.3	637.7	638.5	639.1	639.1	639.9	640.6	639.1	637.7	637.0
5°	639.1	639.9	642.0	644.2	645.6	647.1	646.3	645.6	644.2	642.0	640.6
7.5°	639.9	642.0	644.2	647.1	649.2	652.0	650.6	649.2	646.3	643.5	641.3
10°	637.7	640.6	644.2	647.7	649.9	652.0	650.6	649.2	646.3	642.7	639.9
12.5°	634.9	638.5	642.7	646.3	648.4	651.3	649.2	647.1	643.5	639.9	636.3
15°	628.4	632.8	637.7	642.0	645.6	648.4	646.3	644.8	640.6	635.6	630.5
17.5°	620.6	626.3	631.3	636.3	639.1	642.0	640.6	639.1	634.1	628.4	622.7
20°	611.3	617.0	622.0	627.0	630.5	633.4	631.3	629.2	624.2	619.1	613.4
22.5°	599.8	605.5	611.3	616.2	619.8	622.7	619.8	616.2	611.3	606.3	600.6
25°	585.5	592.0	598.4	603.4	605.5	608.4	605.5	602.7	597.7	592.7	586.3
27.5°	571.2	577.7	584.1	589.1	591.2	594.1	591.2	588.4	583.4	578.4	572.0
30°	554.8	561.3	567.6	572.7	574.8	576.9	574.1	571.2	567.0	561.9	555.5
32.5°	536.2	542.6	547.6	552.7	555.5	558.4	555.5	553.3	548.3	541.9	535.5
35°	516.1	522.6	529.1	534.0	536.9	539.8	536.2	532.7	528.3	523.3	517.6
37.5°	494.0	501.2	508.3	514.0	516.1	519.0	516.1	512.6	508.3	503.3	496.9
40°	473.2	479.7	486.2	491.9	494.0	496.1	493.3	490.4	485.4	480.4	474.0
42.5°	451.9	458.3	464.0	469.0	471.1	474.0	471.1	467.5	464.0	459.7	454.0
45°	429.0	435.4	440.4	445.4	447.5	449.7	446.9	443.3	439.7	436.1	430.4
47.5°	405.4	411.1	416.1	421.1	422.5	424.6	421.8	419.7	416.1	412.6	407.5
50°	381.1	386.8	391.8	396.0	397.5	399.6	396.8	393.9	391.1	388.2	384.0
52.5°	356.0	361.1	366.1	370.3	371.8	373.2	370.3	367.4	364.6	361.7	357.5
55°	330.3	335.3	340.3	343.9	345.3	346.8	343.9	341.7	338.8	336.7	332.5
57.5°	304.5	309.6	313.8	317.4	318.8	320.3	317.4	314.6	312.5	310.2	306.7
60°	278.1	283.1	286.7	289.6	291.0	291.7	288.8	286.7	285.2	283.9	280.3
62.5°	252.4	255.9	259.5	261.6	263.1	263.8	261.6	260.2	258.8	257.4	254.5
65°	225.2	229.5	232.4	234.5	235.2	235.9	233.8	232.4	230.9	229.5	227.3
67.5°	198.1	201.6	203.8	205.9	206.6	206.6	206.6	205.9	204.4	202.3	200.2
70°	170.8	173.7	175.9	177.3	178.0	178.0	176.6	175.2	175.2	174.4	173.0
72.5°	143.0	145.1	146.6	148.0	148.0	148.0	148.0	148.7	148.0	146.6	144.4
75°	116.5	118.7	120.1	120.9	120.9	120.9	120.9	121.5	120.9	120.1	118.7
77.5°	91.5	92.9	93.6	94.4	94.4	94.4	95.1	95.8	95.1	94.4	93.6
80°	67.9	68.6	69.4	70.1	69.4	69.4	70.1	71.5	70.8	70.1	69.4
82.5°	46.5	47.2	47.9	47.9	48.6	49.4	49.4	49.4	49.4	48.6	47.9
85°	27.9	28.6	28.6	28.6	28.6	28.6	29.3	30.0	30.0	29.3	29.3
87.5°	12.9	13.6	12.9	12.2	11.4	11.4	12.9	14.3	14.3	13.6	13.6
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°	632.0	632.0	632.0	632.0
2.5°	637.7	637.0	633.4	629.9
5°	639.9	637.7	632.8	627.7
7.5°	639.9	637.0	629.9	623.4
10°	636.3	632.0	624.2	616.2
12.5°	632.0	627.0	617.7	609.1
15°	625.6	619.8	609.9	599.8
17.5°	616.2	609.1	599.1	588.4
20°	607.0	599.1	587.0	575.6
22.5°	594.1	587.0	574.1	561.9
25°	579.8	572.0	559.0	546.2
27.5°	564.8	555.5	542.6	529.8
30°	547.6	538.4	525.5	512.6
32.5°	529.1	520.5	507.6	494.0
35°	510.4	501.2	488.3	474.7
37.5°	489.8	481.2	468.3	455.4
40°	467.5	458.9	446.1	433.2
42.5°	446.9	438.9	426.1	413.9
45°	424.0	416.1	404.0	392.5
47.5°	400.4	392.5	381.1	369.7
50°	377.5	369.7	358.9	348.2
52.5°	351.8	345.3	335.3	325.3
55°	326.8	320.3	310.2	301.0
57.5°	301.7	295.9	286.7	278.1
60°	275.3	269.6	262.4	254.5
62.5°	250.2	245.2	238.1	230.9
65°	223.8	219.5	213.0	206.6
67.5°	196.6	193.0	187.3	181.6
70°	169.5	165.1	160.9	155.8
72.5°	142.3	140.1	135.8	131.6
75°	116.5	114.4	110.8	107.2
77.5°	92.3	90.1	87.2	84.4
80°	67.9	66.5	64.3	62.2
82.5°	47.2	45.8	44.3	42.2
85°	28.6	27.2	25.7	24.3
87.5°	12.9	12.2	10.7	10.0
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)