

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: P735604

Luminaire Tested: **4APN6-29-B2750-W2D-CP125-3000K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P735604  
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: 4APN6-29-B2750-W2D-CP125-3000K  
Description: 4FT 2900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3000K CCT, AND CP125 LENS

Light Source: -  
Ballast/Driver: -

**Summary**

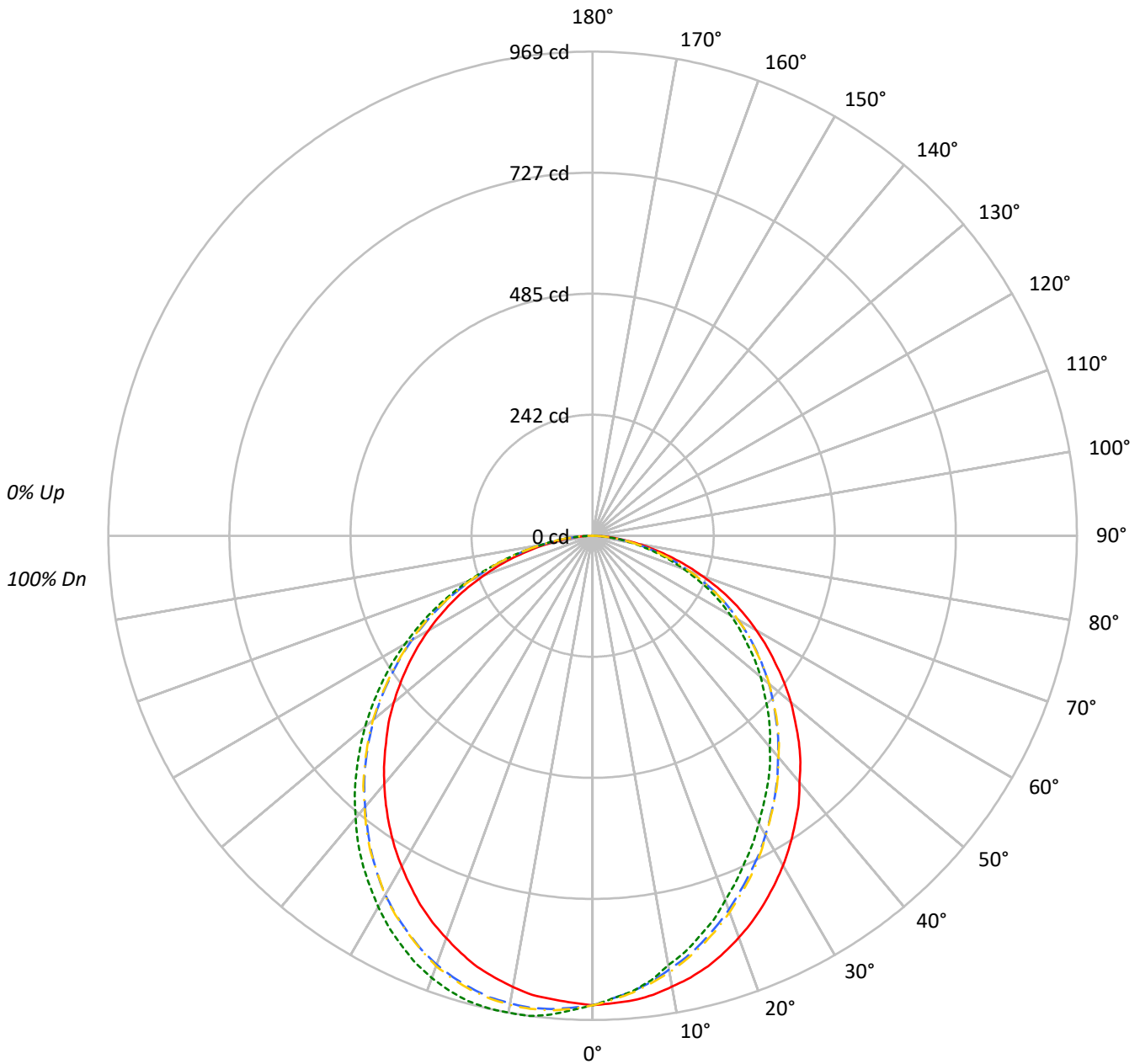
Lumens per Lamp: N/A  
Luminaire Lumens: 2520.0 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	8669	8669	8669	8669
5°	8644	8476	8623	8910
10°	8583	8176	8594	9081
15°	8518	7919	8529	9208
20°	8402	7619	8411	9246
25°	8266	7337	8299	9208
30°	8119	7078	8141	9138
35°	7948	6872	7984	9039
40°	7758	6643	7809	8884
45°	7613	6477	7628	8722
50°	7431	6301	7459	8527
55°	7198	6071	7248	8292
60°	6982	5884	7003	8003
65°	6704	5639	6704	7658
70°	6250	5220	6223	7138
75°	5682	4738	5607	6406
80°	4915	4070	4745	5478
85°	3832	3038	3599	4499



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.8	3.5
10°-20°	252.0	10.0
20°-30°	374.6	14.9
30°-40°	441.5	17.5
40°-50°	449.6	17.8
50°-60°	400.5	15.9
60°-70°	301.7	12.0
70°-80°	167.8	6.7
80°-90°	43.6	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°	715.3	28.4
0°-40°	1156.9	45.9
0°-60°	2006.9	79.6
0°-90°	2520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2520.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	940	940	940	940	940	
5°	933	915	931	962	933	89
15°	892	829	893	964	892	251
25°	812	721	815	904	812	374
35°	706	610	709	802	706	441
45°	584	496	585	668	584	450
55°	448	377	451	516	448	401
65°	307	258	307	351	307	303
75°	159	133	157	180	159	169
85°	36	29	34	42	36	44
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°	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6
2.5°	936.4	936.4	937.4	933.3	928.0	925.8	924.8	923.7	925.8	926.8	925.8
5°	933.3	931.1	929.0	923.7	917.3	913.0	910.9	909.9	912.0	915.2	912.0
7.5°	926.8	922.6	918.3	910.9	903.5	897.1	893.9	891.8	893.9	897.1	894.9
10°	916.2	910.9	904.5	896.1	885.4	878.0	874.8	871.6	872.7	872.7	872.7
12.5°	905.6	898.2	890.7	880.1	868.4	859.9	854.6	850.4	852.4	853.5	853.5
15°	891.8	882.3	871.6	859.9	848.2	838.6	832.3	828.0	829.1	829.1	830.1
17.5°	874.8	864.2	853.5	839.8	825.8	815.2	807.9	802.5	804.6	805.7	806.7
20°	855.7	843.9	832.3	817.4	802.5	790.8	783.3	777.0	776.0	776.0	777.0
22.5°	835.4	822.7	808.9	792.9	777.0	764.2	756.7	750.4	749.4	749.4	750.4
25°	812.0	798.2	784.5	768.5	751.4	738.8	729.2	722.8	721.7	720.7	722.8
27.5°	787.6	773.8	760.0	744.1	726.0	713.2	703.6	697.3	695.1	694.1	696.2
30°	762.1	746.1	731.3	714.2	698.3	685.6	676.0	668.5	666.5	664.4	666.5
32.5°	734.5	718.5	702.6	685.6	669.7	656.9	647.3	639.9	637.8	636.6	638.8
35°	705.7	689.8	675.0	657.9	642.0	629.3	619.7	613.4	611.2	610.1	611.2
37.5°	677.0	661.2	646.3	629.3	613.4	600.6	591.0	584.6	583.5	582.5	583.5
40°	644.1	630.3	615.4	599.4	583.5	570.8	563.4	555.9	553.8	551.6	554.9
42.5°	615.4	601.6	586.8	571.9	555.9	543.1	534.7	528.3	526.2	525.0	526.2
45°	583.5	568.7	553.8	540.0	525.0	513.4	504.9	498.5	497.4	496.4	497.4
47.5°	549.6	536.8	524.0	510.2	495.3	483.7	476.2	469.9	467.7	465.6	467.7
50°	517.7	504.9	492.1	479.4	465.6	454.9	447.5	441.1	440.0	439.0	440.0
52.5°	483.7	470.9	459.2	446.4	434.7	424.1	416.7	411.4	410.3	409.2	410.3
55°	447.5	436.8	426.2	415.6	403.9	394.3	388.0	381.5	379.5	377.4	379.5
57.5°	413.4	403.9	393.3	382.7	372.0	363.6	357.1	351.8	350.8	349.6	350.8
60°	378.4	369.9	360.3	350.8	340.2	331.7	326.4	322.1	319.9	318.9	319.9
62.5°	343.3	334.8	327.4	317.8	308.3	301.8	296.5	292.3	290.2	289.2	290.2
65°	307.1	299.8	292.3	283.8	276.4	269.9	264.6	260.4	259.3	258.3	258.3
67.5°	269.9	263.6	257.3	249.8	241.3	234.9	229.6	226.4	225.4	224.2	225.4
70°	231.7	226.4	220.1	213.6	207.3	202.0	198.8	195.6	194.5	193.5	193.5
72.5°	195.6	191.3	186.0	180.7	175.4	170.1	166.9	164.8	163.7	162.6	162.6
75°	159.4	155.1	152.0	147.8	142.5	139.2	136.0	133.9	132.9	132.9	132.9
77.5°	125.4	122.2	119.1	114.8	111.6	108.4	106.3	105.3	104.1	104.1	104.1
80°	92.5	90.4	88.2	86.1	82.9	79.7	78.7	77.6	76.6	76.6	76.6
82.5°	62.8	61.6	59.5	57.5	55.3	54.2	53.1	52.1	52.1	52.1	52.1
85°	36.2	35.1	34.0	32.9	31.9	31.9	30.9	29.7	28.7	28.7	28.7
87.5°	14.9	14.9	14.9	13.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
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°	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6
2.5°	923.7	925.8	928.0	931.1	934.3	937.4	936.4	935.4	939.6	944.9	946.0
5°	909.9	912.0	915.2	920.5	925.8	930.1	931.1	931.1	939.6	947.1	949.2
7.5°	892.9	896.1	900.2	905.6	913.0	919.5	922.6	926.8	935.4	944.9	949.2
10°	871.6	877.0	883.3	890.7	898.2	905.6	912.0	917.3	928.0	938.6	944.9
12.5°	852.4	857.7	864.2	872.7	882.3	891.8	898.2	905.6	918.3	931.1	938.6
15°	831.1	836.5	843.9	852.4	863.0	873.7	883.3	892.9	905.6	919.5	928.0
17.5°	807.9	813.2	820.5	831.1	842.9	854.6	865.2	875.8	890.7	905.6	915.2
20°	779.1	786.6	796.1	806.7	820.5	834.4	845.1	856.7	872.7	888.6	899.2
22.5°	751.4	758.9	769.5	782.3	797.2	812.0	824.8	837.6	854.6	870.5	882.3
25°	724.8	733.5	744.1	756.7	770.7	785.5	800.4	815.2	832.3	849.2	861.0
27.5°	698.3	705.7	716.4	729.2	745.1	760.0	774.8	789.8	807.9	825.8	838.6
30°	668.5	677.0	686.6	699.4	716.4	733.5	748.3	764.2	782.3	800.4	813.2
32.5°	640.9	648.4	657.9	670.7	687.6	704.7	720.7	737.6	754.7	772.7	785.5
35°	613.4	620.7	630.3	643.1	660.1	677.0	693.0	708.9	726.0	742.9	755.7
37.5°	585.6	593.1	602.7	615.4	631.3	648.4	663.2	679.2	696.2	713.2	724.8
40°	556.9	564.4	571.9	584.6	600.6	617.5	632.5	648.4	665.4	682.3	694.1
42.5°	528.3	535.7	545.3	558.1	572.9	587.8	602.7	617.5	633.5	649.4	661.2
45°	499.6	505.9	515.5	527.2	542.1	555.9	570.8	584.6	600.6	615.4	627.2
47.5°	469.9	476.2	483.7	495.3	510.2	525.0	540.0	553.8	567.6	582.5	593.1
50°	441.1	447.5	455.9	466.6	480.5	494.3	507.1	519.7	533.6	547.4	556.9
52.5°	411.4	417.7	425.2	435.8	447.5	460.2	471.9	484.7	497.4	510.2	519.7
55°	381.5	385.8	392.2	401.8	414.6	427.3	439.0	450.6	462.4	473.0	482.5
57.5°	351.8	357.1	364.6	373.1	383.7	394.3	404.9	415.6	426.2	436.8	445.3
60°	322.1	326.4	331.7	339.0	349.6	359.3	369.9	379.5	389.0	398.6	406.1
62.5°	291.2	295.5	300.8	308.3	316.7	325.2	334.8	343.3	351.8	360.3	367.7
65°	259.3	263.6	268.9	275.2	282.7	290.2	298.6	307.1	313.6	319.9	327.4
67.5°	226.4	230.7	236.0	241.3	247.6	255.1	262.6	269.9	276.4	282.7	288.0
70°	194.5	197.7	203.0	207.3	212.6	217.9	224.2	230.7	234.9	240.2	246.6
72.5°	163.7	166.9	171.1	175.4	178.6	182.9	189.2	194.5	199.8	206.3	209.4
75°	133.9	136.0	139.2	142.5	145.7	148.8	153.1	157.3	161.6	164.8	169.1
77.5°	104.1	106.3	109.5	111.6	113.8	115.9	119.1	122.2	125.4	127.6	131.9
80°	76.6	78.7	80.7	82.9	85.0	87.2	88.2	89.3	93.5	96.7	98.8
82.5°	52.1	53.1	54.2	56.3	57.5	58.5	59.5	59.5	61.6	63.8	66.9
85°	29.7	30.9	31.9	31.9	31.9	31.9	32.9	34.0	35.1	37.2	39.4
87.5°	11.6	11.6	12.8	12.8	12.8	12.8	12.8	12.8	13.8	15.9	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):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6	939.6
2.5°	944.9	946.0	948.1	949.2	950.2	950.2	951.4	952.4	950.2	948.1	947.1
5°	950.2	951.4	954.5	957.7	959.8	962.0	960.9	959.8	957.7	954.5	952.4
7.5°	951.4	954.5	957.7	962.0	965.2	969.3	967.3	965.2	960.9	956.7	953.4
10°	948.1	952.4	957.7	963.0	966.2	969.3	967.3	965.2	960.9	955.5	951.4
12.5°	943.9	949.2	955.5	960.9	964.0	968.3	965.2	962.0	956.7	951.4	946.0
15°	934.3	940.7	948.1	954.5	959.8	964.0	960.9	958.7	952.4	944.9	937.4
17.5°	922.6	931.1	938.6	946.0	950.2	954.5	952.4	950.2	942.8	934.3	925.8
20°	908.8	917.3	924.8	932.1	937.4	941.7	938.6	935.4	928.0	920.5	912.0
22.5°	891.8	900.2	908.8	916.2	921.5	925.8	921.5	916.2	908.8	901.4	892.9
25°	870.5	880.1	889.6	897.1	900.2	904.5	900.2	896.1	888.6	881.1	871.6
27.5°	849.2	858.9	868.4	875.8	879.0	883.3	879.0	874.8	867.3	859.9	850.4
30°	824.8	834.4	843.9	851.4	854.6	857.7	853.5	849.2	842.9	835.4	825.8
32.5°	797.2	806.7	814.2	821.7	825.8	830.1	825.8	822.7	815.2	805.7	796.1
35°	767.4	777.0	786.6	793.9	798.2	802.5	797.2	791.9	785.5	778.0	769.5
37.5°	734.5	745.1	755.7	764.2	767.4	771.7	767.4	762.1	755.7	748.3	738.8
40°	703.6	713.2	722.8	731.3	734.5	737.6	733.5	729.2	721.7	714.2	704.7
42.5°	671.8	681.3	689.8	697.3	700.4	704.7	700.4	695.1	689.8	683.5	675.0
45°	637.8	647.3	654.7	662.2	665.4	668.5	664.4	659.0	653.7	648.4	639.9
47.5°	602.7	611.2	618.7	626.0	628.2	631.3	627.2	624.0	618.7	613.4	605.9
50°	566.5	575.0	582.5	588.8	591.0	594.1	590.0	585.6	581.5	577.2	570.8
52.5°	529.3	536.8	544.3	550.6	552.7	554.9	550.6	546.3	542.1	537.8	531.5
55°	491.1	498.5	505.9	511.2	513.4	515.5	511.2	508.1	503.8	500.6	494.3
57.5°	452.8	460.2	466.6	471.9	474.0	476.2	471.9	467.7	464.5	461.3	455.9
60°	413.4	420.9	426.2	430.5	432.7	433.7	429.4	426.2	424.1	422.0	416.7
62.5°	375.2	380.5	385.8	389.0	391.1	392.2	389.0	386.8	384.8	382.7	378.4
65°	334.8	341.2	345.5	348.6	349.6	350.8	347.6	345.5	343.3	341.2	338.0
67.5°	294.5	299.8	302.9	306.1	307.1	307.1	307.1	306.1	304.0	300.8	297.6
70°	254.0	258.3	261.4	263.6	264.6	264.6	262.6	260.4	260.4	259.3	257.3
72.5°	212.6	215.8	217.9	220.1	220.1	220.1	220.1	221.1	220.1	217.9	214.7
75°	173.2	176.4	178.6	179.7	179.7	179.7	179.7	180.7	179.7	178.6	176.4
77.5°	136.0	138.2	139.2	140.3	140.3	140.3	141.4	142.5	141.4	140.3	139.2
80°	101.0	102.0	103.1	104.1	103.1	103.1	104.1	106.3	105.3	104.1	103.1
82.5°	69.1	70.1	71.2	71.2	72.3	73.4	73.4	73.4	73.4	72.3	71.2
85°	41.5	42.5	42.5	42.5	42.5	42.5	43.5	44.7	44.7	43.5	43.5
87.5°	19.1	20.2	19.1	18.1	17.0	17.0	19.1	21.3	21.3	20.2	20.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P735604

CATALOG NUMBER: 4APN6-29-B2750-W2D-CP125-3000K

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	939.6	939.6	939.6	939.6
2.5°	948.1	947.1	941.7	936.4
5°	951.4	948.1	940.7	933.3
7.5°	951.4	947.1	936.4	926.8
10°	946.0	939.6	928.0	916.2
12.5°	939.6	932.1	918.3	905.6
15°	930.1	921.5	906.7	891.8
17.5°	916.2	905.6	890.7	874.8
20°	902.4	890.7	872.7	855.7
22.5°	883.3	872.7	853.5	835.4
25°	862.0	850.4	831.1	812.0
27.5°	839.8	825.8	806.7	787.6
30°	814.2	800.4	781.3	762.1
32.5°	786.6	773.8	754.7	734.5
35°	758.9	745.1	726.0	705.7
37.5°	728.1	715.4	696.2	677.0
40°	695.1	682.3	663.2	644.1
42.5°	664.4	652.6	633.5	615.4
45°	630.3	618.7	600.6	583.5
47.5°	595.3	583.5	566.5	549.6
50°	561.2	549.6	533.6	517.7
52.5°	523.0	513.4	498.5	483.7
55°	485.8	476.2	461.3	447.5
57.5°	448.6	440.0	426.2	413.4
60°	409.2	400.8	390.1	378.4
62.5°	372.0	364.6	353.9	343.3
65°	332.7	326.4	316.7	307.1
67.5°	292.3	287.0	278.5	269.9
70°	252.0	245.5	239.2	231.7
72.5°	211.6	208.3	202.0	195.6
75°	173.2	170.1	164.8	159.4
77.5°	137.2	133.9	129.7	125.4
80°	101.0	98.8	95.7	92.5
82.5°	70.1	68.1	65.9	62.8
85°	42.5	40.4	38.2	36.2
87.5°	19.1	18.1	15.9	14.9
90°	0.0	0.0	0.0	0.0



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















(END OF REPORT)