

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: P735607

Luminaire Tested: **4APN6-29-B2750-W2D-CP125-5000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735607
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-CP125-5000K
Description: 4FT 2900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 5000K CCT, AND CP125 LENS

Light Source: -
Ballast/Driver: -

Summary

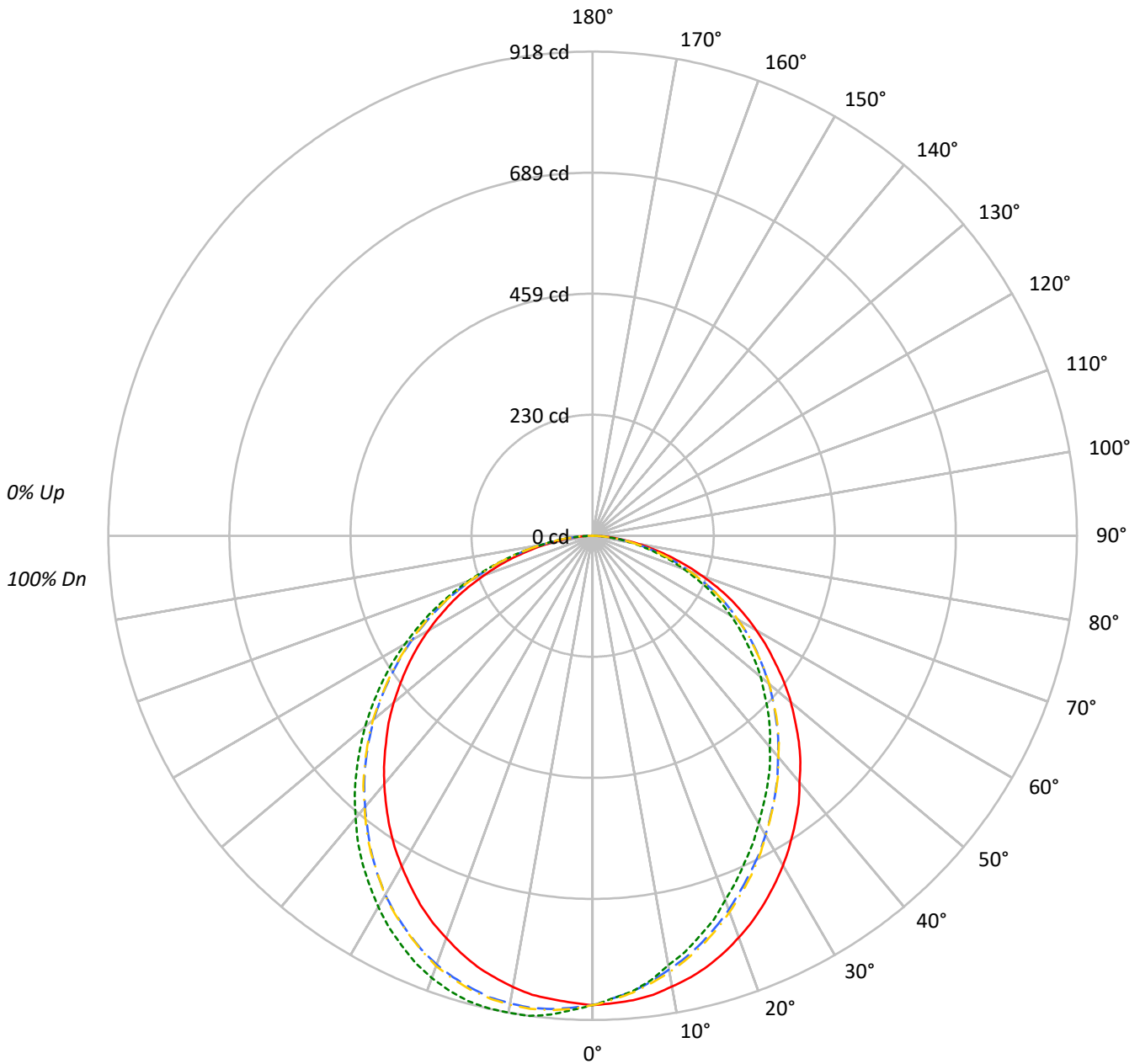
Lumens per Lamp: N/A
Luminaire Lumens: 2387.0 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.5
Input Voltage (V): NR
Input Current (A_{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°	8211	8211	8211	8211
5°	8187	8029	8169	8439
10°	8130	7744	8140	8602
15°	8068	7502	8079	8722
20°	7958	7216	7968	8758
25°	7830	6949	7861	8722
30°	7690	6704	7712	8656
35°	7529	6509	7563	8562
40°	7348	6293	7397	8415
45°	7212	6135	7226	8263
50°	7039	5968	7066	8078
55°	6817	5749	6865	7854
60°	6613	5574	6634	7580
65°	6351	5340	6351	7254
70°	5921	4945	5894	6760
75°	5383	4488	5311	6067
80°	4654	3852	4495	5191
85°	3631	2879	3409	4266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.1	3.5
10°-20°	238.7	10.0
20°-30°	354.8	14.9
30°-40°	418.2	17.5
40°-50°	425.8	17.8
50°-60°	379.3	15.9
60°-70°	285.8	12.0
70°-80°	158.9	6.7
80°-90°	41.3	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°	677.6	28.4
0°-40°	1095.8	45.9
0°-60°	1901.0	79.6
0°-90°	2387.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2387.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	890	890	890	890	890	
5°	884	867	882	911	884	84
15°	845	785	846	913	845	238
25°	769	683	772	857	769	354
35°	668	578	672	760	668	418
45°	553	470	554	633	553	426
55°	424	357	427	488	424	380
65°	291	245	291	332	291	287
75°	151	126	149	170	151	160
85°	34	27	32	40	34	41
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°	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0
2.5°	887.0	887.0	888.0	884.0	879.0	876.9	876.0	874.9	876.9	877.9	876.9
5°	884.0	882.0	879.9	874.9	868.9	864.8	862.8	861.8	863.9	866.9	863.9
7.5°	877.9	873.9	869.9	862.8	855.8	849.7	846.7	844.7	846.7	849.7	847.7
10°	867.8	862.8	856.8	848.8	838.7	831.6	828.6	825.6	826.6	826.6	826.6
12.5°	857.8	850.8	843.7	833.7	822.5	814.5	809.5	805.5	807.4	808.5	808.5
15°	844.7	835.7	825.6	814.5	803.5	794.4	788.4	784.3	785.4	785.4	786.3
17.5°	828.6	818.6	808.5	795.4	782.2	772.2	765.2	760.2	762.1	763.2	764.1
20°	810.5	799.4	788.4	774.2	760.2	749.0	742.0	736.0	735.0	735.0	736.0
22.5°	791.4	779.2	766.2	751.1	736.0	723.9	716.8	710.8	709.8	709.8	710.8
25°	769.2	756.1	743.0	727.9	711.8	699.8	690.7	684.7	683.6	682.6	684.7
27.5°	746.0	733.0	719.9	704.8	687.7	675.6	666.5	660.5	658.4	657.5	659.5
30°	721.8	706.7	692.7	676.5	661.4	649.4	640.3	633.3	631.3	629.3	631.3
32.5°	695.7	680.6	665.5	649.4	634.3	622.2	613.1	606.2	604.1	603.0	605.1
35°	668.5	653.4	639.4	623.2	608.1	596.1	587.0	581.0	579.0	577.9	579.0
37.5°	641.3	626.3	612.2	596.1	581.0	568.9	559.8	553.8	552.7	551.7	552.7
40°	610.1	597.1	582.9	567.8	552.7	540.7	533.6	526.6	524.5	522.5	525.6
42.5°	582.9	569.8	555.8	541.7	526.6	514.5	506.4	500.4	498.4	497.3	498.4
45°	552.7	538.7	524.5	511.5	497.3	486.3	478.3	472.2	471.2	470.2	471.2
47.5°	520.6	508.5	496.4	483.3	469.2	458.1	451.1	445.1	443.0	441.0	443.0
50°	490.4	478.3	466.2	454.1	441.0	430.9	423.8	417.9	416.8	415.8	416.8
52.5°	458.1	446.0	435.0	422.9	411.7	401.7	394.7	389.7	388.6	387.6	388.6
55°	423.8	413.8	403.7	393.6	382.6	373.5	367.5	361.4	359.5	357.4	359.5
57.5°	391.6	382.6	372.5	362.5	352.4	344.4	338.3	333.2	332.3	331.2	332.3
60°	358.4	350.4	341.3	332.3	322.2	314.2	309.1	305.1	303.0	302.1	303.0
62.5°	325.2	317.2	310.1	301.0	292.0	285.9	280.8	276.9	274.9	273.9	274.9
65°	290.9	284.0	276.9	268.9	261.8	255.7	250.6	246.7	245.6	244.6	244.6
67.5°	255.7	249.7	243.7	236.6	228.6	222.5	217.4	214.4	213.5	212.4	213.5
70°	219.5	214.4	208.4	202.3	196.3	191.3	188.3	185.3	184.2	183.3	183.3
72.5°	185.3	181.2	176.2	171.2	166.1	161.1	158.1	156.1	155.1	154.0	154.0
75°	151.0	147.0	144.0	140.0	135.0	131.9	128.9	126.8	125.9	125.9	125.9
77.5°	118.8	115.8	112.8	108.7	105.7	102.7	100.7	99.7	98.6	98.6	98.6
80°	87.6	85.6	83.5	81.5	78.5	75.5	74.6	73.5	72.5	72.5	72.5
82.5°	59.5	58.4	56.3	54.4	52.4	51.3	50.3	49.4	49.4	49.4	49.4
85°	34.3	33.2	32.2	31.2	30.2	30.2	29.2	28.2	27.2	27.2	27.2
87.5°	14.1	14.1	14.1	13.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
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°	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0
2.5°	874.9	876.9	879.0	882.0	885.0	888.0	887.0	886.0	890.0	895.0	896.1
5°	861.8	863.9	866.9	871.9	876.9	881.0	882.0	882.0	890.0	897.1	899.1
7.5°	845.8	848.8	852.7	857.8	864.8	870.9	873.9	877.9	886.0	895.0	899.1
10°	825.6	830.7	836.7	843.7	850.8	857.8	863.9	868.9	879.0	889.0	895.0
12.5°	807.4	812.5	818.6	826.6	835.7	844.7	850.8	857.8	869.9	882.0	889.0
15°	787.3	792.3	799.4	807.4	817.5	827.6	836.7	845.8	857.8	870.9	879.0
17.5°	765.2	770.3	777.2	787.3	798.4	809.5	819.5	829.6	843.7	857.8	866.9
20°	738.0	745.1	754.1	764.1	777.2	790.4	800.5	811.5	826.6	841.7	851.8
22.5°	711.8	718.8	728.9	741.0	755.2	769.2	781.3	793.4	809.5	824.6	835.7
25°	686.6	694.7	704.8	716.8	730.0	744.0	758.2	772.2	788.4	804.4	815.6
27.5°	661.4	668.5	678.6	690.7	705.8	719.9	733.9	748.1	765.2	782.2	794.4
30°	633.3	641.3	650.4	662.5	678.6	694.7	708.8	723.9	741.0	758.2	770.3
32.5°	607.1	614.2	623.2	635.3	651.4	667.5	682.6	698.7	714.9	731.9	744.0
35°	581.0	587.9	597.1	609.2	625.2	641.3	656.4	671.5	687.7	703.7	715.8
37.5°	554.7	561.8	570.9	582.9	598.0	614.2	628.2	643.3	659.5	675.6	686.6
40°	527.5	534.6	541.7	553.8	568.9	584.9	599.1	614.2	630.3	646.3	657.5
42.5°	500.4	507.4	516.5	528.6	542.6	556.8	570.9	584.9	600.0	615.2	626.3
45°	473.2	479.2	488.3	499.4	513.5	526.6	540.7	553.8	568.9	582.9	594.1
47.5°	445.1	451.1	458.1	469.2	483.3	497.3	511.5	524.5	537.6	551.7	561.8
50°	417.9	423.8	431.9	441.9	455.1	468.2	480.3	492.3	505.5	518.5	527.5
52.5°	389.7	395.7	402.7	412.8	423.8	436.0	447.0	459.1	471.2	483.3	492.3
55°	361.4	365.5	371.5	380.6	392.7	404.8	415.8	426.8	438.0	448.1	457.0
57.5°	333.2	338.3	345.3	353.4	363.4	373.5	383.6	393.6	403.7	413.8	421.8
60°	305.1	309.1	314.2	321.1	331.2	340.3	350.4	359.5	368.5	377.6	384.7
62.5°	275.8	279.9	284.9	292.0	300.0	308.1	317.2	325.2	333.2	341.3	348.3
65°	245.6	249.7	254.7	260.7	267.8	274.9	282.9	290.9	297.0	303.0	310.1
67.5°	214.4	218.5	223.6	228.6	234.6	241.6	248.7	255.7	261.8	267.8	272.8
70°	184.2	187.2	192.3	196.3	201.4	206.4	212.4	218.5	222.5	227.5	233.6
72.5°	155.1	158.1	162.1	166.1	169.1	173.2	179.2	184.2	189.3	195.4	198.4
75°	126.8	128.9	131.9	135.0	138.0	141.0	145.0	149.0	153.1	156.1	160.1
77.5°	98.6	100.7	103.7	105.7	107.8	109.8	112.8	115.8	118.8	120.8	124.9
80°	72.5	74.6	76.5	78.5	80.5	82.6	83.5	84.6	88.6	91.6	93.6
82.5°	49.4	50.3	51.3	53.3	54.4	55.4	56.3	56.3	58.4	60.4	63.4
85°	28.2	29.2	30.2	30.2	30.2	30.2	31.2	32.2	33.2	35.2	37.3
87.5°	11.0	11.0	12.1	12.1	12.1	12.1	12.1	12.1	13.1	15.1	16.1
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°	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0
2.5°	895.0	896.1	898.0	899.1	900.1	900.1	901.2	902.1	900.1	898.0	897.1
5°	900.1	901.2	904.1	907.1	909.2	911.2	910.1	909.2	907.1	904.1	902.1
7.5°	901.2	904.1	907.1	911.2	914.2	918.2	916.3	914.2	910.1	906.2	903.1
10°	898.0	902.1	907.1	912.2	915.2	918.2	916.3	914.2	910.1	905.1	901.2
12.5°	894.1	899.1	905.1	910.1	913.1	917.2	914.2	911.2	906.2	901.2	896.1
15°	885.0	891.1	898.0	904.1	909.2	913.1	910.1	908.1	902.1	895.0	888.0
17.5°	873.9	882.0	889.0	896.1	900.1	904.1	902.1	900.1	893.0	885.0	876.9
20°	860.9	868.9	876.0	882.9	888.0	892.0	889.0	886.0	879.0	871.9	863.9
22.5°	844.7	852.7	860.9	867.8	872.9	876.9	872.9	867.8	860.9	853.8	845.8
25°	824.6	833.7	842.7	849.7	852.7	856.8	852.7	848.8	841.7	834.6	825.6
27.5°	804.4	813.5	822.5	829.6	832.6	836.7	832.6	828.6	821.6	814.5	805.5
30°	781.3	790.4	799.4	806.5	809.5	812.5	808.5	804.4	798.4	791.4	782.2
32.5°	755.2	764.1	771.2	778.3	782.2	786.3	782.2	779.2	772.2	763.2	754.1
35°	726.9	736.0	745.1	752.0	756.1	760.2	755.2	750.1	744.0	736.9	728.9
37.5°	695.7	705.8	715.8	723.9	726.9	730.9	726.9	721.8	715.8	708.8	699.8
40°	666.5	675.6	684.7	692.7	695.7	698.7	694.7	690.7	683.6	676.5	667.5
42.5°	636.4	645.4	653.4	660.5	663.5	667.5	663.5	658.4	653.4	647.4	639.4
45°	604.1	613.1	620.2	627.3	630.3	633.3	629.3	624.3	619.2	614.2	606.2
47.5°	570.9	579.0	586.0	593.0	595.0	598.0	594.1	591.1	586.0	581.0	573.9
50°	536.6	544.7	551.7	557.7	559.8	562.8	558.8	554.7	550.8	546.7	540.7
52.5°	501.4	508.5	515.5	521.5	523.6	525.6	521.5	517.5	513.5	509.4	503.4
55°	465.2	472.2	479.2	484.3	486.3	488.3	484.3	481.3	477.2	474.2	468.2
57.5°	428.9	436.0	441.9	447.0	449.0	451.1	447.0	443.0	440.0	436.9	431.9
60°	391.6	398.7	403.7	407.8	409.8	410.8	406.7	403.7	401.7	399.8	394.7
62.5°	355.4	360.4	365.5	368.5	370.5	371.5	368.5	366.4	364.5	362.5	358.4
65°	317.2	323.2	327.2	330.2	331.2	332.3	329.3	327.2	325.2	323.2	320.2
67.5°	278.9	284.0	287.0	290.0	290.9	290.9	290.9	290.0	287.9	284.9	281.9
70°	240.6	244.6	247.6	249.7	250.6	250.6	248.7	246.7	246.7	245.6	243.7
72.5°	201.4	204.4	206.4	208.4	208.4	208.4	208.4	209.4	208.4	206.4	203.4
75°	164.1	167.1	169.1	170.2	170.2	170.2	170.2	171.2	170.2	169.1	167.1
77.5°	128.9	130.9	131.9	132.9	132.9	132.9	133.9	135.0	133.9	132.9	131.9
80°	95.7	96.6	97.7	98.6	97.7	97.7	98.6	100.7	99.7	98.6	97.7
82.5°	65.4	66.4	67.5	67.5	68.4	69.5	69.5	69.5	69.5	68.4	67.5
85°	39.3	40.3	40.3	40.3	40.3	40.3	41.2	42.3	42.3	41.2	41.2
87.5°	18.1	19.2	18.1	17.1	16.1	16.1	18.1	20.1	20.1	19.2	19.2
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°	890.0	890.0	890.0	890.0
2.5°	898.0	897.1	892.0	887.0
5°	901.2	898.0	891.1	884.0
7.5°	901.2	897.1	887.0	877.9
10°	896.1	890.0	879.0	867.8
12.5°	890.0	882.9	869.9	857.8
15°	881.0	872.9	858.8	844.7
17.5°	867.8	857.8	843.7	828.6
20°	854.8	843.7	826.6	810.5
22.5°	836.7	826.6	808.5	791.4
25°	816.5	805.5	787.3	769.2
27.5°	795.4	782.2	764.1	746.0
30°	771.2	758.2	740.1	721.8
32.5°	745.1	733.0	714.9	695.7
35°	718.8	705.8	687.7	668.5
37.5°	689.7	677.6	659.5	641.3
40°	658.4	646.3	628.2	610.1
42.5°	629.3	618.1	600.0	582.9
45°	597.1	586.0	568.9	552.7
47.5°	563.8	552.7	536.6	520.6
50°	531.6	520.6	505.5	490.4
52.5°	495.4	486.3	472.2	458.1
55°	460.2	451.1	436.9	423.8
57.5°	424.9	416.8	403.7	391.6
60°	387.6	379.6	369.5	358.4
62.5°	352.4	345.3	335.3	325.2
65°	315.1	309.1	300.0	290.9
67.5°	276.9	271.9	263.8	255.7
70°	238.7	232.5	226.5	219.5
72.5°	200.4	197.3	191.3	185.3
75°	164.1	161.1	156.1	151.0
77.5°	129.9	126.8	122.9	118.8
80°	95.7	93.6	90.6	87.6
82.5°	66.4	64.5	62.5	59.5
85°	40.3	38.2	36.2	34.3
87.5°	18.1	17.1	15.1	14.1
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)