

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: P735605

Luminaire Tested: **4APN6-29-B2750-W2D-CP125-3500K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735605
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-CP125-3500K
Description: 4FT 2900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3500K CCT, AND CP125 LENS

Light Source: -
Ballast/Driver: -

Summary

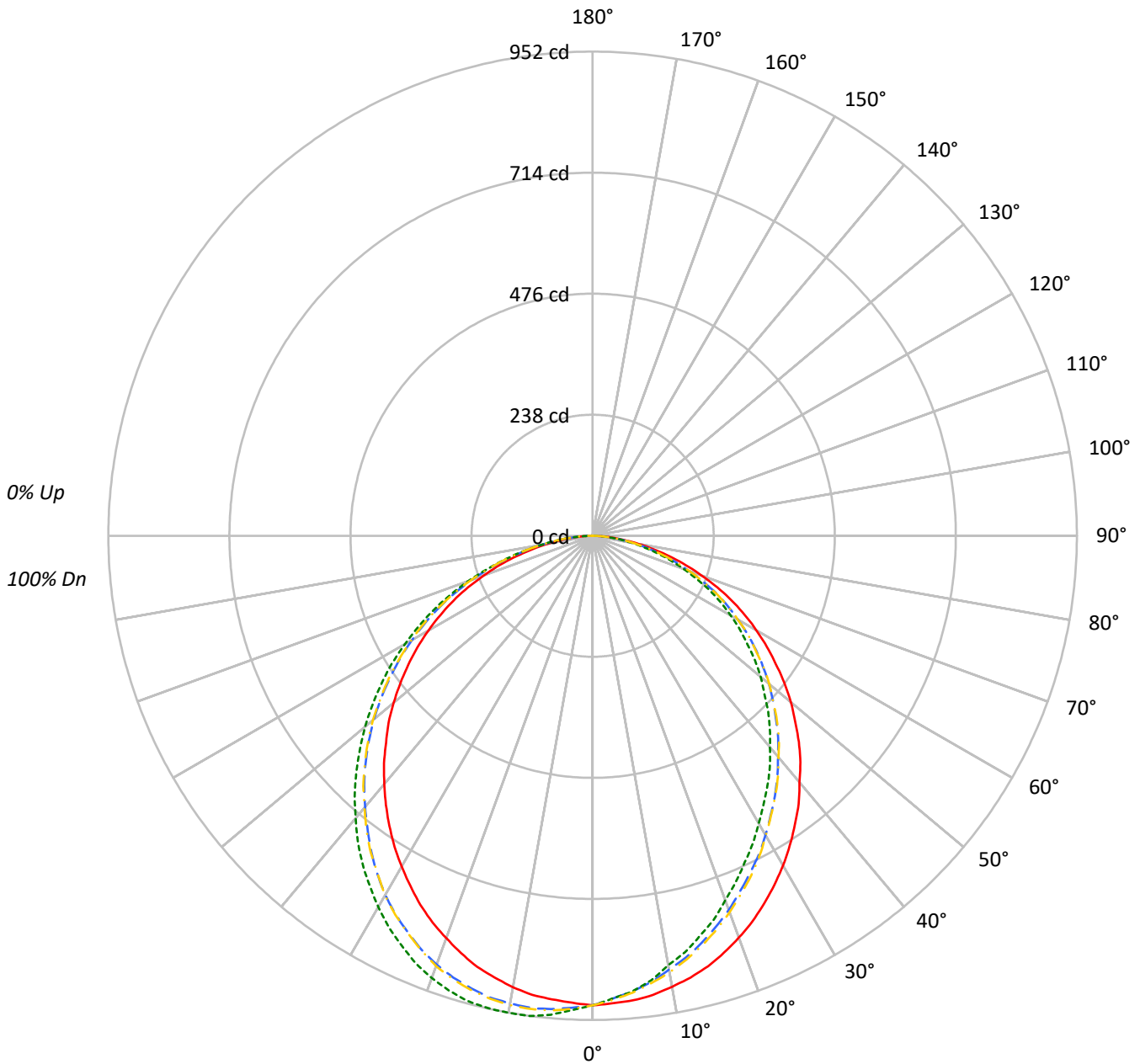
Lumens per Lamp: N/A
Luminaire Lumens: 2476.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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°	8518	8518	8518	8518
5°	8493	8328	8473	8754
10°	8434	8033	8444	8923
15°	8369	7781	8380	9047
20°	8255	7485	8264	9085
25°	8123	7208	8154	9047
30°	7976	6955	8000	8978
35°	7810	6751	7845	8881
40°	7623	6528	7673	8729
45°	7480	6365	7495	8571
50°	7302	6191	7329	8380
55°	7071	5964	7123	8147
60°	6861	5781	6881	7863
65°	6589	5541	6589	7525
70°	6142	5128	6115	7014
75°	5586	4656	5508	6295
80°	4830	3995	4665	5382
85°	3769	2985	3536	4425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.2	3.5
10°-20°	247.6	10.0
20°-30°	368.1	14.9
30°-40°	433.8	17.5
40°-50°	441.7	17.8
50°-60°	393.5	15.9
60°-70°	296.4	12.0
70°-80°	164.9	6.7
80°-90°	42.8	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°	702.9	28.4
0°-40°	1136.7	45.9
0°-60°	1971.8	79.6
0°-90°	2476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2476.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	923	923	923	923	923	
5°	917	899	915	945	917	87
15°	876	815	877	947	876	247
25°	798	708	801	889	798	368
35°	693	599	696	788	693	434
45°	573	488	574	657	573	442
55°	440	371	443	506	440	394
65°	302	254	302	345	302	298
75°	157	131	154	177	157	166
85°	36	28	33	42	36	43
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°	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2
2.5°	920.1	920.1	921.1	917.0	911.8	909.6	908.6	907.5	909.6	910.6	909.6
5°	917.0	914.9	912.7	907.5	901.3	897.1	895.0	894.0	896.1	899.2	896.1
7.5°	910.6	906.5	902.3	895.0	887.8	881.4	878.3	876.2	878.3	881.4	879.3
10°	900.2	895.0	888.7	880.4	870.0	862.6	859.5	856.4	857.4	857.4	857.4
12.5°	889.7	882.5	875.2	864.8	853.2	844.9	839.6	835.5	837.5	838.6	838.6
15°	876.2	866.9	856.4	844.9	833.4	824.0	817.8	813.5	814.6	814.6	815.6
17.5°	859.5	849.1	838.6	825.1	811.4	801.0	793.8	788.5	790.5	791.6	792.6
20°	840.8	829.2	817.8	803.1	788.5	777.0	769.6	763.4	762.4	762.4	763.4
22.5°	820.9	808.3	794.8	779.1	763.4	750.9	743.5	737.3	736.3	736.3	737.3
25°	797.9	784.3	770.8	755.1	738.3	725.9	716.4	710.2	709.1	708.1	710.2
27.5°	773.9	760.3	746.8	731.1	713.3	700.8	691.3	685.1	683.0	682.0	684.1
30°	748.7	733.1	718.5	701.7	686.1	673.6	664.2	656.9	654.9	652.8	654.9
32.5°	721.6	706.0	690.3	673.6	658.0	645.4	636.0	628.8	626.6	625.5	627.6
35°	693.4	677.8	663.2	646.4	630.8	618.3	608.9	602.7	600.5	599.4	600.5
37.5°	665.2	649.7	635.0	618.3	602.7	590.1	580.6	574.4	573.3	572.3	573.3
40°	632.9	619.3	604.6	589.0	573.3	560.9	553.5	546.2	544.1	542.0	545.2
42.5°	604.6	591.1	576.5	561.9	546.2	533.6	525.3	519.1	517.0	515.9	517.0
45°	573.3	558.8	544.1	530.5	515.9	504.4	496.1	489.8	488.8	487.8	488.8
47.5°	540.0	527.4	514.9	501.3	486.6	475.2	467.9	461.7	459.5	457.4	459.5
50°	508.7	496.1	483.5	471.0	457.4	447.0	439.6	433.4	432.3	431.3	432.3
52.5°	475.2	462.7	451.2	438.7	427.1	416.6	409.4	404.2	403.1	402.1	403.1
55°	439.6	429.2	418.8	408.3	396.9	387.4	381.2	374.9	372.9	370.8	372.9
57.5°	406.2	396.9	386.4	376.0	365.5	357.2	350.9	345.7	344.7	343.5	344.7
60°	371.8	363.4	354.0	344.7	334.2	325.9	320.7	316.4	314.3	313.3	314.3
62.5°	337.3	329.0	321.7	312.2	302.9	296.5	291.3	287.2	285.1	284.1	285.1
65°	301.8	294.6	287.2	278.9	271.5	265.2	260.0	255.9	254.8	253.8	253.8
67.5°	265.2	259.0	252.8	245.4	237.1	230.8	225.5	222.4	221.4	220.3	221.4
70°	227.7	222.4	216.2	209.9	203.7	198.4	195.3	192.2	191.1	190.1	190.1
72.5°	192.2	188.0	182.8	177.6	172.3	167.1	164.0	161.9	160.9	159.8	159.8
75°	156.7	152.4	149.3	145.2	140.0	136.8	133.7	131.5	130.6	130.6	130.6
77.5°	123.2	120.1	117.0	112.8	109.7	106.6	104.4	103.4	102.3	102.3	102.3
80°	90.9	88.8	86.7	84.5	81.4	78.3	77.3	76.2	75.2	75.2	75.2
82.5°	61.7	60.6	58.4	56.4	54.3	53.2	52.2	51.2	51.2	51.2	51.2
85°	35.6	34.4	33.4	32.3	31.3	31.3	30.3	29.2	28.2	28.2	28.2
87.5°	14.7	14.7	14.7	13.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
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°	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2
2.5°	907.5	909.6	911.8	914.9	918.0	921.1	920.1	919.1	923.2	928.4	929.5
5°	894.0	896.1	899.2	904.4	909.6	913.9	914.9	914.9	923.2	930.5	932.6
7.5°	877.3	880.4	884.5	889.7	897.1	903.4	906.5	910.6	919.1	928.4	932.6
10°	856.4	861.6	867.9	875.2	882.5	889.7	896.1	901.3	911.8	922.2	928.4
12.5°	837.5	842.7	849.1	857.4	866.9	876.2	882.5	889.7	902.3	914.9	922.2
15°	816.6	821.9	829.2	837.5	848.0	858.4	867.9	877.3	889.7	903.4	911.8
17.5°	793.8	799.0	806.2	816.6	828.2	839.6	850.1	860.5	875.2	889.7	899.2
20°	765.5	772.9	782.2	792.6	806.2	819.9	830.3	841.7	857.4	873.1	883.5
22.5°	738.3	745.6	756.1	768.6	783.3	797.9	810.4	823.0	839.6	855.3	866.9
25°	712.2	720.6	731.1	743.5	757.2	771.7	786.4	801.0	817.8	834.4	846.0
27.5°	686.1	693.4	703.9	716.4	732.1	746.8	761.3	776.0	793.8	811.4	824.0
30°	656.9	665.2	674.6	687.2	703.9	720.6	735.2	750.9	768.6	786.4	799.0
32.5°	629.8	637.1	646.4	659.0	675.6	692.4	708.1	724.8	741.5	759.2	771.7
35°	602.7	609.9	619.3	631.9	648.5	665.2	680.9	696.5	713.3	730.0	742.5
37.5°	575.4	582.8	592.2	604.6	620.3	637.1	651.6	667.3	684.1	700.8	712.2
40°	547.2	554.5	561.9	574.4	590.1	606.8	621.4	637.1	653.8	670.4	682.0
42.5°	519.1	526.3	535.8	548.3	562.9	577.5	592.2	606.8	622.4	638.1	649.7
45°	490.9	497.1	506.5	518.0	532.7	546.2	560.9	574.4	590.1	604.6	616.2
47.5°	461.7	467.9	475.2	486.6	501.3	515.9	530.5	544.1	557.6	572.3	582.8
50°	433.4	439.6	448.0	458.4	472.1	485.7	498.2	510.6	524.3	537.9	547.2
52.5°	404.2	410.4	417.8	428.2	439.6	452.2	463.6	476.2	488.8	501.3	510.6
55°	374.9	379.1	385.3	394.8	407.3	419.9	431.3	442.8	454.3	464.8	474.1
57.5°	345.7	350.9	358.2	366.5	377.0	387.4	397.9	408.3	418.8	429.2	437.5
60°	316.4	320.7	325.9	333.1	343.5	353.0	363.4	372.9	382.2	391.7	399.0
62.5°	286.1	290.3	295.5	302.9	311.2	319.5	329.0	337.3	345.7	354.0	361.3
65°	254.8	259.0	264.2	270.4	277.8	285.1	293.4	301.8	308.1	314.3	321.7
67.5°	222.4	226.7	231.9	237.1	243.3	250.7	258.0	265.2	271.5	277.8	283.0
70°	191.1	194.2	199.4	203.7	208.9	214.1	220.3	226.7	230.8	236.0	242.3
72.5°	160.9	164.0	168.1	172.3	175.4	179.7	185.9	191.1	196.3	202.7	205.8
75°	131.5	133.7	136.8	140.0	143.1	146.2	150.4	154.5	158.8	161.9	166.1
77.5°	102.3	104.4	107.6	109.7	111.8	113.9	117.0	120.1	123.2	125.3	129.6
80°	75.2	77.3	79.3	81.4	83.6	85.7	86.7	87.8	91.9	95.0	97.1
82.5°	51.2	52.2	53.2	55.3	56.4	57.4	58.4	58.4	60.6	62.7	65.8
85°	29.2	30.3	31.3	31.3	31.3	31.3	32.3	33.4	34.4	36.6	38.7
87.5°	11.4	11.4	12.6	12.6	12.6	12.6	12.6	12.6	13.6	15.7	16.7
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°	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2	923.2
2.5°	928.4	929.5	931.5	932.6	933.6	933.6	934.8	935.7	933.6	931.5	930.5
5°	933.6	934.8	937.9	941.0	943.1	945.2	944.1	943.1	941.0	937.9	935.7
7.5°	934.8	937.9	941.0	945.2	948.3	952.4	950.4	948.3	944.1	940.0	936.7
10°	931.5	935.7	941.0	946.2	949.3	952.4	950.4	948.3	944.1	938.9	934.8
12.5°	927.4	932.6	938.9	944.1	947.2	951.4	948.3	945.2	940.0	934.8	929.5
15°	918.0	924.3	931.5	937.9	943.1	947.2	944.1	942.0	935.7	928.4	921.1
17.5°	906.5	914.9	922.2	929.5	933.6	937.9	935.7	933.6	926.3	918.0	909.6
20°	893.0	901.3	908.6	915.9	921.1	925.3	922.2	919.1	911.8	904.4	896.1
22.5°	876.2	884.5	893.0	900.2	905.4	909.6	905.4	900.2	893.0	885.6	877.3
25°	855.3	864.8	874.1	881.4	884.5	888.7	884.5	880.4	873.1	865.7	856.4
27.5°	834.4	843.9	853.2	860.5	863.6	867.9	863.6	859.5	852.2	844.9	835.5
30°	810.4	819.9	829.2	836.5	839.6	842.7	838.6	834.4	828.2	820.9	811.4
32.5°	783.3	792.6	800.0	807.3	811.4	815.6	811.4	808.3	801.0	791.6	782.2
35°	754.0	763.4	772.9	780.1	784.3	788.5	783.3	778.1	771.7	764.4	756.1
37.5°	721.6	732.1	742.5	750.9	754.0	758.2	754.0	748.7	742.5	735.2	725.9
40°	691.3	700.8	710.2	718.5	721.6	724.8	720.6	716.4	709.1	701.7	692.4
42.5°	660.1	669.4	677.8	685.1	688.2	692.4	688.2	683.0	677.8	671.5	663.2
45°	626.6	636.0	643.3	650.6	653.8	656.9	652.8	647.5	642.3	637.1	628.8
47.5°	592.2	600.5	607.9	615.1	617.2	620.3	616.2	613.1	607.9	602.7	595.3
50°	556.6	565.0	572.3	578.5	580.6	583.8	579.7	575.4	571.3	567.1	560.9
52.5°	520.1	527.4	534.8	541.0	543.1	545.2	541.0	536.8	532.7	528.4	522.2
55°	482.5	489.8	497.1	502.3	504.4	506.5	502.3	499.2	495.0	491.9	485.7
57.5°	444.9	452.2	458.4	463.6	465.8	467.9	463.6	459.5	456.4	453.2	448.0
60°	406.2	413.5	418.8	423.0	425.1	426.1	421.9	418.8	416.6	414.7	409.4
62.5°	368.7	373.9	379.1	382.2	384.3	385.3	382.2	380.1	378.1	376.0	371.8
65°	329.0	335.2	339.4	342.5	343.5	344.7	341.5	339.4	337.3	335.2	332.1
67.5°	289.3	294.6	297.7	300.8	301.8	301.8	301.8	300.8	298.7	295.5	292.4
70°	249.5	253.8	256.9	259.0	260.0	260.0	258.0	255.9	255.9	254.8	252.8
72.5°	208.9	212.0	214.1	216.2	216.2	216.2	216.2	217.2	216.2	214.1	211.0
75°	170.2	173.3	175.4	176.6	176.6	176.6	176.6	177.6	176.6	175.4	173.3
77.5°	133.7	135.8	136.8	137.9	137.9	137.9	138.9	140.0	138.9	137.9	136.8
80°	99.2	100.2	101.3	102.3	101.3	101.3	102.3	104.4	103.4	102.3	101.3
82.5°	67.9	68.9	70.0	70.0	71.0	72.1	72.1	72.1	72.1	71.0	70.0
85°	40.8	41.8	41.8	41.8	41.8	41.8	42.8	43.9	43.9	42.8	42.8
87.5°	18.8	19.9	18.8	17.8	16.7	16.7	18.8	20.9	20.9	19.9	19.9
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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CATALOG NUMBER: 4APN6-29-B2750-W2D-CP125-3500K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	923.2	923.2	923.2	923.2
2.5°	931.5	930.5	925.3	920.1
5°	934.8	931.5	924.3	917.0
7.5°	934.8	930.5	920.1	910.6
10°	929.5	923.2	911.8	900.2
12.5°	923.2	915.9	902.3	889.7
15°	913.9	905.4	890.9	876.2
17.5°	900.2	889.7	875.2	859.5
20°	886.6	875.2	857.4	840.8
22.5°	867.9	857.4	838.6	820.9
25°	847.0	835.5	816.6	797.9
27.5°	825.1	811.4	792.6	773.9
30°	800.0	786.4	767.6	748.7
32.5°	772.9	760.3	741.5	721.6
35°	745.6	732.1	713.3	693.4
37.5°	715.4	702.9	684.1	665.2
40°	683.0	670.4	651.6	632.9
42.5°	652.8	641.2	622.4	604.6
45°	619.3	607.9	590.1	573.3
47.5°	584.9	573.3	556.6	540.0
50°	551.4	540.0	524.3	508.7
52.5°	513.9	504.4	489.8	475.2
55°	477.3	467.9	453.2	439.6
57.5°	440.8	432.3	418.8	406.2
60°	402.1	393.8	383.3	371.8
62.5°	365.5	358.2	347.8	337.3
65°	326.9	320.7	311.2	301.8
67.5°	287.2	282.0	273.7	265.2
70°	247.6	241.2	235.0	227.7
72.5°	207.9	204.7	198.4	192.2
75°	170.2	167.1	161.9	156.7
77.5°	134.8	131.5	127.4	123.2
80°	99.2	97.1	94.0	90.9
82.5°	68.9	66.9	64.8	61.7
85°	41.8	39.7	37.5	35.6
87.5°	18.8	17.8	15.7	14.7
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)