

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: P392579

Luminaire Tested: **MWL-3-30-25-UNV-L940-EDD**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P392579
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-13 &
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MWL-3-30-25-UNV-L940-EDD
Description: MWL 3FT MEDICAL LED FIXTURE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

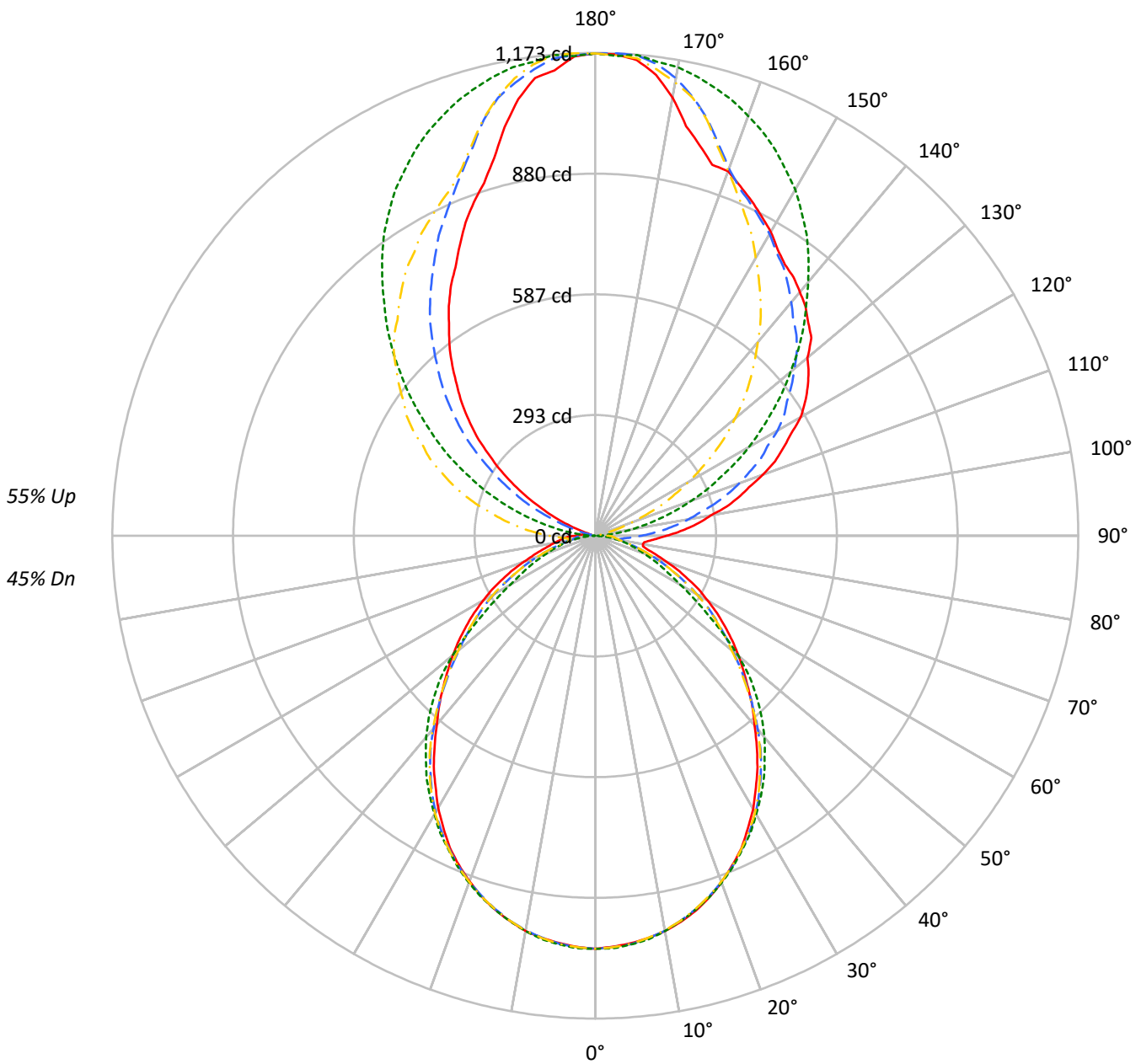
Lumens per Lamp: N/A
Luminaire Lumens: 5103.2 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 3' x H: 0.42')
CIE Type: General Diffuse

Input Watts (W): 53.328
Input Voltage (V): NR
Input Current (Ain): 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



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



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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45				
1	97	93	89	85	89	85	82	79	71	68	66	58	56	55	46	45	44	38				
2	88	81	75	70	81	75	69	65	62	59	55	51	48	46	41	39	37	32				
3	81	72	64	59	74	66	60	55	55	51	47	45	42	39	36	34	32	28				
4	74	64	56	50	68	59	52	47	49	44	40	41	37	34	33	30	28	24				
5	68	57	49	43	62	52	45	40	44	39	35	37	33	30	30	27	25	21				
6	63	51	43	37	57	47	40	35	40	35	31	33	29	26	27	24	22	19				
7	58	46	38	33	53	43	36	31	36	31	27	30	26	23	25	22	19	17				
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	17	15				
9	50	38	31	26	46	36	29	24	30	25	22	26	22	19	21	18	16	14				
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	19	17	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8640	8640	8640	8640
5°	8486	7924	8486	7924
10°	8323	7249	8323	7249
15°	8106	6613	8084	6613
20°	7814	6027	7791	6027
25°	7482	5459	7459	5459
30°	7056	4926	7024	4926
35°	6576	4420	6552	4420
40°	6058	3906	6024	3906
45°	5616	3376	5589	3376
50°	5219	2766	5191	2766
55°	4811	2060	4791	2060
60°	4372	1508	4361	1508
65°	3886	1144	3886	1144
70°	3317	843	3333	843
75°	2890	615	2945	615
80°	3248	399	2813	399
85°	5098	173	3039	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.8
10°-20°	264.9	5.2
20°-30°	386.6	7.6
30°-40°	436.8	8.6
40°-50°	408.7	8.0
50°-60°	322.6	6.3
60°-70°	210.9	4.1
70°-80°	110.1	2.2
80°-90°	68.1	1.3
90°-100°	97.4	1.9
100°-110°	182.1	3.6
110°-120°	311.3	6.1
120°-130°	422.7	8.3
130°-140°	482.2	9.4
140°-150°	481.1	9.4
150°-160°	418.9	8.2
160°-170°	294.7	5.8
170°-180°	109.8	2.2
0°-30°	745.9	14.6
0°-40°	1182.7	23.2
0°-60°	1914.0	37.5
0°-90°	2303.1	45.1
90°-120°	590.8	11.6
90°-150°	1976.8	38.7
90°-180°	2800.0	54.9
0°-180°	5103.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1003	1003	1003	1003	1003	
5°	994	997	994	997	994	94
15°	943	941	940	941	943	265
25°	838	842	836	842	838	385
35°	686	715	684	715	686	428
45°	525	554	523	554	525	406
55°	384	333	382	333	384	344
65°	248	177	248	177	248	246
75°	132	87	134	87	132	147
85°	134	22	80	22	134	106
90°	173	1	49	1	173	96
95°	229	34	32	34	229	199
105°	360	164	11	164	360	379
115°	503	334	116	334	503	499
125°	630	524	286	524	630	562
135°	731	715	460	715	731	565
145°	803	894	619	894	803	507
155°	898	1034	779	1034	898	414
165°	981	1126	949	1126	981	278
175°	1160	1172	1135	1172	1160	108
180°	1171	1171	1171	1171	1171	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1003.4	1003.4	1003.4	1003.4	1003.4	1003.4	1003.4	1003.4	1003.4	1003.4	1003.4
2.5°	999.0	1002.5	1000.6	1002.3	1003.2	1001.5	1000.6	1002.5	999.8	1002.5	1000.6
5°	993.6	997.0	996.0	996.0	996.9	996.0	995.2	997.0	993.6	997.0	995.2
7.5°	985.3	987.9	986.1	987.8	988.7	987.0	985.2	987.0	985.3	987.0	985.2
10°	975.2	975.2	974.2	975.2	975.2	974.2	973.3	973.4	975.2	973.4	973.3
12.5°	960.5	958.8	957.8	959.7	958.8	959.7	957.8	957.0	958.8	957.0	957.8
15°	943.1	941.4	939.6	941.4	940.6	940.6	938.8	939.7	940.5	939.7	938.8
17.5°	921.2	919.6	918.7	920.6	920.6	920.6	917.8	918.7	918.7	918.7	917.8
20°	895.8	896.8	895.1	897.8	897.1	897.1	894.2	895.1	893.2	895.1	894.2
22.5°	867.6	869.5	869.6	871.5	871.6	870.6	868.7	867.7	865.9	867.7	868.7
25°	838.5	837.6	841.3	845.0	842.4	844.2	839.6	835.0	835.9	835.0	839.6
27.5°	802.0	807.5	811.2	815.8	815.1	815.0	809.5	805.0	799.5	805.0	809.5
30°	766.5	769.2	778.4	783.9	781.4	782.2	775.8	766.7	763.1	766.7	775.8
32.5°	725.5	731.0	741.0	750.2	748.5	748.5	738.4	727.6	722.1	727.6	738.4
35°	686.4	688.2	701.0	713.8	714.8	711.2	698.4	685.7	683.9	685.7	698.4
37.5°	643.6	645.4	660.0	675.5	675.6	672.9	657.4	642.9	641.0	642.9	657.4
40°	601.7	602.6	614.4	634.5	639.1	632.9	611.1	599.2	598.3	599.2	611.1
42.5°	565.2	558.9	567.1	590.8	598.1	589.1	564.6	555.5	561.9	555.5	564.6
45°	525.2	517.9	522.4	544.3	554.4	542.7	519.1	515.4	522.7	515.4	519.1
47.5°	488.7	479.6	478.7	494.3	508.8	493.5	475.4	477.1	486.3	477.1	475.4
50°	454.1	443.2	435.0	446.0	452.5	444.3	431.7	439.9	451.6	439.9	431.7
52.5°	419.5	408.5	395.9	398.6	391.4	397.0	393.4	405.3	417.0	405.3	393.4
55°	384.0	374.9	359.4	350.4	333.2	348.8	357.0	372.5	382.4	372.5	357.0
57.5°	350.3	343.0	323.9	303.9	283.1	302.3	321.4	340.6	348.7	340.6	321.4
60°	314.9	311.2	285.7	256.7	239.3	255.8	284.1	309.6	314.1	309.6	284.1
62.5°	283.0	276.6	249.3	215.7	203.9	214.8	247.6	275.0	282.2	275.0	247.6
65°	247.5	243.0	212.0	181.9	176.6	181.1	211.2	242.2	247.5	242.2	211.2
67.5°	215.7	206.5	181.0	149.2	149.2	149.2	180.2	205.7	215.7	205.7	180.2
70°	182.0	172.9	149.2	124.6	125.5	124.6	149.2	173.7	182.9	173.7	149.2
72.5°	155.6	141.9	121.9	101.9	104.7	101.0	121.9	142.8	157.3	142.8	121.9
75°	131.9	115.5	96.5	82.8	87.4	82.8	97.3	116.3	134.4	116.3	97.3
77.5°	118.5	96.0	75.5	64.6	70.1	64.6	76.4	93.6	115.2	93.6	76.4
80°	117.1	91.3	61.6	49.1	53.7	49.1	60.0	78.0	101.4	78.0	60.0
82.5°	119.6	97.6	60.6	35.4	37.3	35.4	50.7	67.8	88.2	67.8	50.7
85°	133.5	112.4	70.6	28.8	21.8	27.2	46.6	62.0	79.6	62.0	46.6
87.5°	151.3	135.8	88.2	35.8	6.4	24.1	41.1	56.3	66.1	56.3	41.1
90°	172.7	160.8	112.5	46.7	0.8	15.3	30.6	44.1	48.7	44.1	30.6
92.5°	200.9	189.1	137.7	67.0	14.1	9.8	24.3	36.1	38.7	36.1	24.3
95°	228.6	221.9	167.8	87.8	34.0	5.1	18.9	29.9	32.5	29.9	18.9
97.5°	258.7	252.6	197.8	116.7	59.7	10.8	14.9	25.1	27.0	25.1	14.9
100°	284.5	281.9	229.6	152.3	91.1	28.2	10.4	22.1	24.0	22.1	10.4
102.5°	326.2	313.5	259.8	186.2	125.0	52.2	13.3	15.8	18.5	15.8	13.3
105°	359.5	345.2	300.4	221.8	163.9	84.5	33.2	12.7	11.3	12.7	33.2
107.5°	391.4	383.2	336.7	258.2	205.3	121.7	61.3	32.4	20.9	32.4	61.3
110°	432.8	422.8	372.4	294.6	248.3	161.4	93.6	58.9	45.6	58.9	93.6



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CATALOG NUMBER: MWL-3-30-25-UNV-L940-EDD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	472.5	465.1	405.4	332.6	292.9	204.5	133.3	92.0	79.5	92.0	133.3
115°	503.1	499.0	443.5	368.2	334.3	253.2	177.1	130.8	116.0	130.8	177.1
117.5°	535.4	534.5	471.6	404.6	383.9	297.0	217.7	169.7	154.1	169.7	217.7
120°	575.9	569.3	510.5	441.0	431.0	343.4	262.3	214.4	198.7	214.4	262.3
122.5°	604.1	600.0	543.6	475.8	475.8	390.5	305.3	257.5	240.9	257.5	305.3
125°	629.7	628.0	568.4	510.5	523.7	434.4	353.3	304.6	286.4	304.6	353.3
127.5°	652.9	655.4	600.7	548.6	572.5	479.1	400.4	346.8	327.7	346.8	400.4
130°	672.8	681.0	631.3	583.3	618.8	527.9	442.6	388.9	376.6	388.9	442.6
132.5°	711.6	706.6	663.6	618.8	668.5	572.5	488.3	431.1	417.1	431.1	488.3
135°	731.4	733.1	690.9	649.4	714.8	617.2	530.4	474.1	460.1	474.1	530.4
137.5°	755.4	750.5	711.5	686.7	757.9	660.2	570.9	519.7	497.4	519.7	570.9
140°	772.8	772.0	740.5	720.7	804.1	703.3	614.0	561.1	540.4	561.1	614.0
142.5°	791.0	795.9	768.7	756.2	850.5	747.1	659.5	601.6	581.7	601.6	659.5
145°	803.4	814.2	796.8	802.6	894.3	797.7	699.2	640.4	618.9	640.4	699.2
147.5°	824.1	838.1	817.4	834.8	932.3	841.5	738.9	681.0	661.9	681.0	738.9
150°	852.2	858.8	846.4	879.5	971.1	890.2	779.4	719.9	700.8	719.9	779.4
152.5°	874.6	882.9	867.8	927.3	1001.8	934.0	823.2	757.9	735.6	757.9	823.2
155°	897.7	900.9	891.1	974.5	1034.0	977.8	859.6	800.1	778.6	800.1	859.6
157.5°	919.1	925.8	914.2	1010.0	1062.2	1015.9	900.1	842.3	823.3	842.3	900.1
160°	942.3	942.3	948.9	1052.3	1085.3	1049.9	943.2	888.6	862.2	888.6	943.2
162.5°	944.8	959.6	996.1	1081.3	1108.5	1078.8	989.5	920.7	898.4	920.7	989.5
165°	981.2	994.4	1049.0	1106.9	1125.9	1104.4	1046.5	975.3	948.9	975.3	1046.5
167.5°	1019.2	1048.1	1092.0	1135.9	1142.5	1128.4	1090.4	1040.7	1016.8	1040.7	1090.4
170°	1080.4	1106.0	1128.4	1146.6	1155.7	1147.4	1117.6	1092.8	1077.0	1092.8	1117.6
172.5°	1129.2	1145.7	1154.9	1166.5	1160.7	1157.4	1142.5	1130.0	1121.7	1130.0	1142.5
175°	1159.7	1163.1	1171.4	1167.3	1172.3	1163.2	1164.0	1168.9	1135.0	1168.9	1164.0
177.5°	1170.5	1176.3	1173.1	1165.7	1166.5	1164.8	1168.1	1170.5	1165.6	1170.5	1168.1
180°	1171.4	1171.4	1171.4	1171.4	1171.4	1171.4	1171.4	1171.4	1171.4	1171.4	1171.4



TEST NUMBER: P392579

CATALOG NUMBER: MWL-3-30-25-UNV-L940-EDD

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1003.4	1003.4	1003.4	1003.4	1003.4	1003.4
2.5°	1001.5	1003.2	1002.3	1000.6	1002.5	999.0
5°	996.0	996.9	996.0	996.0	997.0	993.6
7.5°	987.0	988.7	987.8	986.1	987.9	985.3
10°	974.2	975.2	975.2	974.2	975.2	975.2
12.5°	959.7	958.8	959.7	957.8	958.8	960.5
15°	940.6	940.6	941.4	939.6	941.4	943.1
17.5°	920.6	920.6	920.6	918.7	919.6	921.2
20°	897.1	897.1	897.8	895.1	896.8	895.8
22.5°	870.6	871.6	871.5	869.6	869.5	867.6
25°	844.2	842.4	845.0	841.3	837.6	838.5
27.5°	815.0	815.1	815.8	811.2	807.5	802.0
30°	782.2	781.4	783.9	778.4	769.2	766.5
32.5°	748.5	748.5	750.2	741.0	731.0	725.5
35°	711.2	714.8	713.8	701.0	688.2	686.4
37.5°	672.9	675.6	675.5	660.0	645.4	643.6
40°	632.9	639.1	634.5	614.4	602.6	601.7
42.5°	589.1	598.1	590.8	567.1	558.9	565.2
45°	542.7	554.4	544.3	522.4	517.9	525.2
47.5°	493.5	508.8	494.3	478.7	479.6	488.7
50°	444.3	452.5	446.0	435.0	443.2	454.1
52.5°	397.0	391.4	398.6	395.9	408.5	419.5
55°	348.8	333.2	350.4	359.4	374.9	384.0
57.5°	302.3	283.1	303.9	323.9	343.0	350.3
60°	255.8	239.3	256.7	285.7	311.2	314.9
62.5°	214.8	203.9	215.7	249.3	276.6	283.0
65°	181.1	176.6	181.9	212.0	243.0	247.5
67.5°	149.2	149.2	149.2	181.0	206.5	215.7
70°	124.6	125.5	124.6	149.2	172.9	182.0
72.5°	101.0	104.7	101.9	121.9	141.9	155.6
75°	82.8	87.4	82.8	96.5	115.5	131.9
77.5°	64.6	70.1	64.6	75.5	96.0	118.5
80°	49.1	53.7	49.1	61.6	91.3	117.1
82.5°	35.4	37.3	35.4	60.6	97.6	119.6
85°	27.2	21.8	28.8	70.6	112.4	133.5
87.5°	24.1	6.4	35.8	88.2	135.8	151.3
90°	15.3	0.8	46.7	112.5	160.8	172.7
92.5°	9.8	14.1	67.0	137.7	189.1	200.9
95°	5.1	34.0	87.8	167.8	221.9	228.6
97.5°	10.8	59.7	116.7	197.8	252.6	258.7
100°	28.2	91.1	152.3	229.6	281.9	284.5
102.5°	52.2	125.0	186.2	259.8	313.5	326.2
105°	84.5	163.9	221.8	300.4	345.2	359.5
107.5°	121.7	205.3	258.2	336.7	383.2	391.4
110°	161.4	248.3	294.6	372.4	422.8	432.8



TEST NUMBER: P392579

CATALOG NUMBER: MWL-3-30-25-UNV-L940-EDD

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	204.5	292.9	332.6	405.4	465.1	472.5
115°	253.2	334.3	368.2	443.5	499.0	503.1
117.5°	297.0	383.9	404.6	471.6	534.5	535.4
120°	343.4	431.0	441.0	510.5	569.3	575.9
122.5°	390.5	475.8	475.8	543.6	600.0	604.1
125°	434.4	523.7	510.5	568.4	628.0	629.7
127.5°	479.1	572.5	548.6	600.7	655.4	652.9
130°	527.9	618.8	583.3	631.3	681.0	672.8
132.5°	572.5	668.5	618.8	663.6	706.6	711.6
135°	617.2	714.8	649.4	690.9	733.1	731.4
137.5°	660.2	757.9	686.7	711.5	750.5	755.4
140°	703.3	804.1	720.7	740.5	772.0	772.8
142.5°	747.1	850.5	756.2	768.7	795.9	791.0
145°	797.7	894.3	802.6	796.8	814.2	803.4
147.5°	841.5	932.3	834.8	817.4	838.1	824.1
150°	890.2	971.1	879.5	846.4	858.8	852.2
152.5°	934.0	1001.8	927.3	867.8	882.9	874.6
155°	977.8	1034.0	974.5	891.1	900.9	897.7
157.5°	1015.9	1062.2	1010.0	914.2	925.8	919.1
160°	1049.9	1085.3	1052.3	948.9	942.3	942.3
162.5°	1078.8	1108.5	1081.3	996.1	959.6	944.8
165°	1104.4	1125.9	1106.9	1049.0	994.4	981.2
167.5°	1128.4	1142.5	1135.9	1092.0	1048.1	1019.2
170°	1147.4	1155.7	1146.6	1128.4	1106.0	1080.4
172.5°	1157.4	1160.7	1166.5	1154.9	1145.7	1129.2
175°	1163.2	1172.3	1167.3	1171.4	1163.1	1159.7
177.5°	1164.8	1166.5	1165.7	1173.1	1176.3	1170.5
180°	1171.4	1171.4	1171.4	1171.4	1171.4	1171.4

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