

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: P392641

Luminaire Tested: **MWL-4-26-25-UNV-L935-EDD**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P392641  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-565-1 &  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MWL-4-26-25-UNV-L935-EDD  
Description: MWL 4FT MEDICAL LED FIXTURE  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

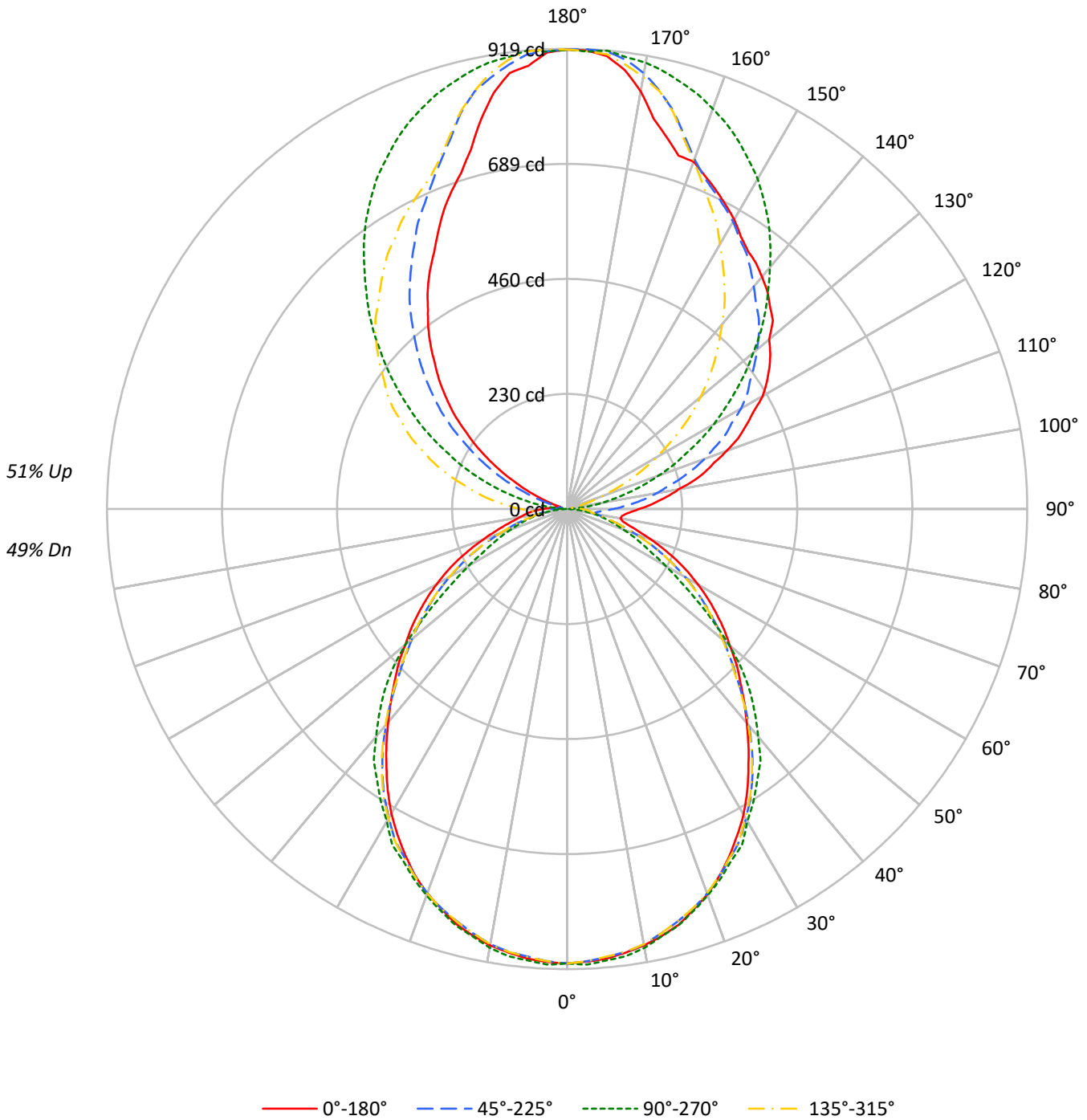
Lumens per Lamp: N/A  
Luminaire Lumens: 4336.0 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.19 / 1.25  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.42')  
CIE Type: General Diffuse

Input Watts (W): 46.965  
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





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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	0
RCR																		
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	93	90	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42
2	89	82	76	71	82	76	70	66	64	60	57	53	51	48	44	42	40	35
3	82	72	65	59	75	67	61	56	57	52	48	48	44	41	39	36	34	30
4	75	64	56	50	69	59	53	47	51	45	41	43	39	36	35	32	30	26
5	69	57	49	43	63	53	46	41	45	40	36	38	34	31	32	29	26	23
6	63	51	43	38	58	48	41	36	41	36	31	35	31	27	29	26	23	20
7	59	47	39	33	54	43	36	31	37	32	28	32	27	24	26	23	21	18
8	54	42	35	29	50	39	33	28	34	29	25	29	25	22	24	21	19	16
9	51	39	31	26	47	36	29	25	31	26	22	27	23	20	22	19	17	15
10	47	35	28	24	44	33	27	22	29	24	20	25	21	18	21	18	15	13

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	5862	5862	5862	5862
5°	5792	5395	5792	5395
10°	5699	4961	5699	4961
15°	5593	4538	5580	4538
20°	5424	4137	5411	4137
25°	5204	3767	5191	3767
30°	4957	3404	4940	3404
35°	4637	3067	4624	3067
40°	4328	2720	4308	2720
45°	4044	2361	4028	2361
50°	3787	1932	3769	1932
55°	3564	1452	3551	1452
60°	3304	1076	3297	1076
65°	3000	797	3000	797
70°	2609	596	2619	596
75°	2293	437	2329	437
80°	2530	283	2242	283
85°	3948	126	2523	126



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.6	2.0
10°-20°	241.4	5.6
20°-30°	354.6	8.2
30°-40°	403.0	9.3
40°-50°	379.2	8.7
50°-60°	304.1	7.0
60°-70°	202.0	4.7
70°-80°	105.9	2.4
80°-90°	61.7	1.4
90°-100°	79.7	1.8
100°-110°	143.7	3.3
110°-120°	244.0	5.6
120°-130°	331.5	7.6
130°-140°	377.9	8.7
140°-150°	376.9	8.7
150°-160°	328.1	7.6
160°-170°	230.8	5.3
170°-180°	86.0	2.0
0°-30°	681.6	15.7
0°-40°	1084.6	25.0
0°-60°	1767.9	40.8
0°-90°	2137.5	49.3
90°-120°	467.4	10.8
90°-150°	1553.7	35.8
90°-180°	2199.0	50.7
0°-180°	4336.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	908	908	908	908	908	
5°	902	905	902	905	902	85
15°	860	861	858	861	860	242
25°	766	775	764	775	766	352
35°	631	662	629	662	631	395
45°	489	517	487	517	489	378
55°	364	313	362	313	364	325
65°	240	164	240	164	240	237
75°	128	83	130	83	128	141
85°	117	21	75	21	117	94
90°	144	1	47	1	144	80
95°	183	27	29	27	183	159
105°	285	128	12	128	285	299
115°	394	262	91	262	394	391
125°	493	411	224	411	493	440
135°	573	560	360	560	573	442
145°	629	701	485	701	629	397
155°	703	810	610	810	703	324
165°	768	882	743	882	768	218
175°	908	919	889	919	908	85
180°	917	917	917	917	917	



TEST NUMBER: P392641

CATALOG NUMBER: MWL-4-26-25-UNV-L935-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	907.6	907.6	907.6	907.6	907.6	907.6	907.6	907.6	907.6	907.6	907.6
2.5°	904.9	904.5	904.1	914.1	910.7	913.4	904.1	904.5	905.5	904.5	904.1
5°	901.5	901.0	898.1	905.8	904.9	905.8	897.4	901.0	901.5	901.0	897.4
7.5°	893.6	893.2	892.3	898.1	900.7	897.4	891.7	892.6	893.6	892.6	891.7
10°	885.0	884.7	883.0	888.1	889.8	887.5	882.4	883.4	885.0	883.4	882.4
12.5°	873.5	875.4	868.0	873.1	874.1	873.1	868.0	874.1	872.2	874.1	868.0
15°	859.8	855.0	852.7	860.4	860.6	859.7	852.0	853.8	857.8	853.8	852.0
17.5°	838.6	839.8	836.7	841.1	841.1	841.1	836.0	839.2	836.7	839.2	836.0
20°	819.1	818.4	817.2	821.6	821.0	821.0	816.5	817.2	817.2	817.2	816.5
22.5°	793.8	796.4	794.2	797.8	799.7	797.2	793.5	795.1	792.6	795.1	793.5
25°	765.8	766.7	769.4	774.9	775.1	774.3	768.2	764.7	763.8	764.7	768.2
27.5°	735.3	738.7	746.5	753.6	756.5	752.9	745.2	736.7	733.4	736.7	745.2
30°	704.7	704.7	714.1	721.0	720.0	719.7	712.2	702.8	702.2	702.8	712.2
32.5°	669.2	669.2	681.9	693.9	692.6	692.6	680.0	666.6	666.6	666.6	680.0
35°	631.1	633.7	645.6	662.5	661.5	660.6	643.7	631.8	629.3	631.8	643.7
37.5°	594.7	593.0	606.5	626.0	634.1	624.2	604.7	591.2	592.8	591.2	604.7
40°	558.2	554.8	565.0	587.3	593.4	586.1	562.4	552.3	555.7	552.3	562.4
42.5°	523.4	517.6	522.9	545.8	555.3	544.5	520.9	515.0	520.9	515.0	520.9
45°	488.9	482.2	480.5	505.1	517.1	503.8	477.9	480.2	487.0	480.2	477.9
47.5°	458.5	449.1	442.3	457.8	473.0	457.2	439.6	447.2	456.5	447.2	439.6
50°	423.7	416.0	406.7	413.7	421.5	412.4	404.1	413.4	421.7	413.4	404.1
52.5°	394.9	385.5	372.1	372.9	366.4	371.7	370.2	382.9	392.9	382.9	370.2
55°	363.6	355.2	339.0	329.1	313.1	327.7	337.0	353.2	362.3	353.2	337.0
57.5°	333.1	327.1	306.0	285.9	265.7	284.5	304.0	325.2	331.8	325.2	304.0
60°	301.9	296.1	272.3	240.2	227.5	239.5	271.0	294.7	301.3	294.7	271.0
62.5°	271.5	267.2	239.2	203.0	191.2	202.3	237.9	265.9	270.8	265.9	237.9
65°	240.2	233.4	207.2	169.8	164.1	169.2	206.5	232.8	240.2	232.8	206.5
67.5°	208.0	201.2	174.9	142.9	142.0	142.9	174.3	200.5	208.0	200.5	174.3
70°	177.7	167.5	143.8	118.3	118.3	118.3	143.8	168.2	178.4	168.2	143.8
72.5°	150.5	137.8	117.4	97.9	100.7	97.3	117.4	138.5	151.9	138.5	117.4
75°	127.6	111.5	93.1	78.7	82.9	78.7	93.7	112.2	129.6	112.2	93.7
77.5°	113.3	93.8	72.7	61.7	66.8	61.7	73.3	91.8	110.7	91.8	73.3
80°	108.2	86.7	58.6	46.5	50.7	46.5	57.2	76.4	95.9	76.4	57.2
82.5°	110.2	88.3	56.2	32.9	35.5	32.9	48.4	65.0	85.6	65.0	48.4
85°	116.7	97.5	62.7	28.0	21.1	26.7	44.0	58.0	74.6	58.0	44.0
87.5°	128.1	113.8	74.8	31.8	6.8	22.7	37.8	51.6	61.4	51.6	37.8
90°	144.1	131.6	92.9	40.3	0.7	15.7	28.9	40.4	46.9	40.4	28.9
92.5°	164.1	153.8	111.8	54.4	11.2	9.8	23.1	34.0	37.1	34.0	23.1
95°	182.6	177.8	134.6	70.8	26.7	6.0	18.0	27.5	29.1	27.5	18.0
97.5°	205.1	202.7	158.0	91.5	46.8	8.6	14.9	24.7	23.8	24.7	14.9
100°	226.1	224.6	182.1	119.3	71.4	22.2	10.4	21.3	22.1	21.3	10.4
102.5°	257.9	248.4	204.3	145.8	97.9	41.0	11.5	15.4	17.1	15.4	11.5
105°	284.8	274.0	235.2	173.8	128.4	66.3	26.1	13.7	12.2	13.7	26.1
107.5°	308.3	300.2	263.7	202.3	160.8	95.4	48.1	25.7	18.3	25.7	48.1
110°	339.0	331.4	291.7	230.7	194.4	126.4	73.3	46.4	36.1	46.4	73.3



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CATALOG NUMBER: MWL-4-26-25-UNV-L935-EDD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	370.2	364.3	317.5	260.5	229.4	160.1	104.5	72.2	62.6	72.2	104.5
115°	394.1	390.8	348.1	288.3	261.8	198.4	139.6	102.7	91.0	102.7	139.6
117.5°	419.4	418.8	370.2	317.6	300.6	233.5	171.4	133.1	120.8	133.1	171.4
120°	451.0	445.9	400.6	346.2	338.4	269.7	206.3	168.1	155.8	168.1	206.3
122.5°	473.1	469.8	426.4	373.4	373.4	306.7	240.0	201.7	188.9	201.7	240.0
125°	493.2	491.9	445.9	400.6	410.9	341.0	277.5	238.7	224.4	238.7	277.5
127.5°	511.3	513.2	471.1	430.3	449.1	376.0	314.4	271.7	256.9	271.7	314.4
130°	526.9	533.3	495.1	457.6	485.4	414.2	347.5	304.8	295.0	304.8	347.5
132.5°	557.3	553.4	519.7	485.4	524.2	449.1	382.4	337.7	326.7	337.7	382.4
135°	572.8	574.1	541.1	509.4	560.5	484.1	415.4	371.4	360.4	371.4	415.4
137.5°	591.6	587.6	557.9	538.4	594.2	517.8	447.8	407.0	389.6	407.0	447.8
140°	605.2	604.5	580.0	564.4	630.4	550.8	480.9	439.5	423.3	439.5	480.9
142.5°	619.5	624.1	601.9	592.9	666.7	585.8	516.5	472.0	455.6	472.0	516.5
145°	629.1	637.5	624.0	628.5	701.0	624.7	547.5	501.6	484.7	501.6	547.5
147.5°	645.4	656.3	640.2	653.7	730.8	658.9	578.7	533.3	518.3	533.3	578.7
150°	667.4	672.5	662.8	688.8	761.3	697.1	610.4	563.7	548.8	563.7	610.4
152.5°	684.9	691.3	680.2	726.9	785.2	732.1	645.4	593.5	576.1	593.5	645.4
155°	703.0	705.5	697.8	763.8	810.4	766.4	673.1	626.6	609.7	626.6	673.1
157.5°	719.7	724.9	715.9	791.7	832.4	796.2	704.9	659.6	644.7	659.6	704.9
160°	738.0	738.0	743.1	824.1	850.6	822.2	738.6	695.8	675.1	695.8	738.6
162.5°	739.9	752.2	780.0	846.8	868.1	844.8	774.8	721.7	703.6	721.7	774.8
165°	768.4	779.4	821.5	866.8	881.6	864.9	819.5	764.4	743.1	764.4	819.5
167.5°	798.1	821.5	855.1	889.5	894.7	883.6	853.8	815.6	796.2	815.6	853.8
170°	846.8	866.8	883.6	897.8	905.0	898.5	875.2	856.4	844.1	856.4	875.2
172.5°	884.0	897.8	904.3	913.4	909.8	906.2	894.7	885.6	878.3	885.6	894.7
175°	908.0	911.4	917.3	914.1	918.8	910.8	911.4	916.0	888.6	916.0	911.4
177.5°	916.4	921.8	918.6	912.8	914.2	912.1	914.8	917.3	912.5	917.3	914.8
180°	917.3	917.3	917.3	917.3	917.3	917.3	917.3	917.3	917.3	917.3	917.3



TEST NUMBER: P392641

CATALOG NUMBER: MWL-4-26-25-UNV-L935-EDD

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	907.6	907.6	907.6	907.6	907.6	907.6
2.5°	913.4	910.7	914.1	904.1	904.5	904.9
5°	905.8	904.9	905.8	898.1	901.0	901.5
7.5°	897.4	900.7	898.1	892.3	893.2	893.6
10°	887.5	889.8	888.1	883.0	884.7	885.0
12.5°	873.1	874.1	873.1	868.0	875.4	873.5
15°	859.7	860.6	860.4	852.7	855.0	859.8
17.5°	841.1	841.1	841.1	836.7	839.8	838.6
20°	821.0	821.0	821.6	817.2	818.4	819.1
22.5°	797.2	799.7	797.8	794.2	796.4	793.8
25°	774.3	775.1	774.9	769.4	766.7	765.8
27.5°	752.9	756.5	753.6	746.5	738.7	735.3
30°	719.7	720.0	721.0	714.1	704.7	704.7
32.5°	692.6	692.6	693.9	681.9	669.2	669.2
35°	660.6	661.5	662.5	645.6	633.7	631.1
37.5°	624.2	634.1	626.0	606.5	593.0	594.7
40°	586.1	593.4	587.3	565.0	554.8	558.2
42.5°	544.5	555.3	545.8	522.9	517.6	523.4
45°	503.8	517.1	505.1	480.5	482.2	488.9
47.5°	457.2	473.0	457.8	442.3	449.1	458.5
50°	412.4	421.5	413.7	406.7	416.0	423.7
52.5°	371.7	366.4	372.9	372.1	385.5	394.9
55°	327.7	313.1	329.1	339.0	355.2	363.6
57.5°	284.5	265.7	285.9	306.0	327.1	333.1
60°	239.5	227.5	240.2	272.3	296.1	301.9
62.5°	202.3	191.2	203.0	239.2	267.2	271.5
65°	169.2	164.1	169.8	207.2	233.4	240.2
67.5°	142.9	142.0	142.9	174.9	201.2	208.0
70°	118.3	118.3	118.3	143.8	167.5	177.7
72.5°	97.3	100.7	97.9	117.4	137.8	150.5
75°	78.7	82.9	78.7	93.1	111.5	127.6
77.5°	61.7	66.8	61.7	72.7	93.8	113.3
80°	46.5	50.7	46.5	58.6	86.7	108.2
82.5°	32.9	35.5	32.9	56.2	88.3	110.2
85°	26.7	21.1	28.0	62.7	97.5	116.7
87.5°	22.7	6.8	31.8	74.8	113.8	128.1
90°	15.7	0.7	40.3	92.9	131.6	144.1
92.5°	9.8	11.2	54.4	111.8	153.8	164.1
95°	6.0	26.7	70.8	134.6	177.8	182.6
97.5°	8.6	46.8	91.5	158.0	202.7	205.1
100°	22.2	71.4	119.3	182.1	224.6	226.1
102.5°	41.0	97.9	145.8	204.3	248.4	257.9
105°	66.3	128.4	173.8	235.2	274.0	284.8
107.5°	95.4	160.8	202.3	263.7	300.2	308.3
110°	126.4	194.4	230.7	291.7	331.4	339.0





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	160.1	229.4	260.5	317.5	364.3	370.2
115°	198.4	261.8	288.3	348.1	390.8	394.1
117.5°	233.5	300.6	317.6	370.2	418.8	419.4
120°	269.7	338.4	346.2	400.6	445.9	451.0
122.5°	306.7	373.4	373.4	426.4	469.8	473.1
125°	341.0	410.9	400.6	445.9	491.9	493.2
127.5°	376.0	449.1	430.3	471.1	513.2	511.3
130°	414.2	485.4	457.6	495.1	533.3	526.9
132.5°	449.1	524.2	485.4	519.7	553.4	557.3
135°	484.1	560.5	509.4	541.1	574.1	572.8
137.5°	517.8	594.2	538.4	557.9	587.6	591.6
140°	550.8	630.4	564.4	580.0	604.5	605.2
142.5°	585.8	666.7	592.9	601.9	624.1	619.5
145°	624.7	701.0	628.5	624.0	637.5	629.1
147.5°	658.9	730.8	653.7	640.2	656.3	645.4
150°	697.1	761.3	688.8	662.8	672.5	667.4
152.5°	732.1	785.2	726.9	680.2	691.3	684.9
155°	766.4	810.4	763.8	697.8	705.5	703.0
157.5°	796.2	832.4	791.7	715.9	724.9	719.7
160°	822.2	850.6	824.1	743.1	738.0	738.0
162.5°	844.8	868.1	846.8	780.0	752.2	739.9
165°	864.9	881.6	866.8	821.5	779.4	768.4
167.5°	883.6	894.7	889.5	855.1	821.5	798.1
170°	898.5	905.0	897.8	883.6	866.8	846.8
172.5°	906.2	909.8	913.4	904.3	897.8	884.0
175°	910.8	918.8	914.1	917.3	911.4	908.0
177.5°	912.1	914.2	912.8	918.6	921.8	916.4
180°	917.3	917.3	917.3	917.3	917.3	917.3

(END OF REPORT)