

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: LUMARK

Report Number: P197052

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197052
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-SL2-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23282 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 249
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

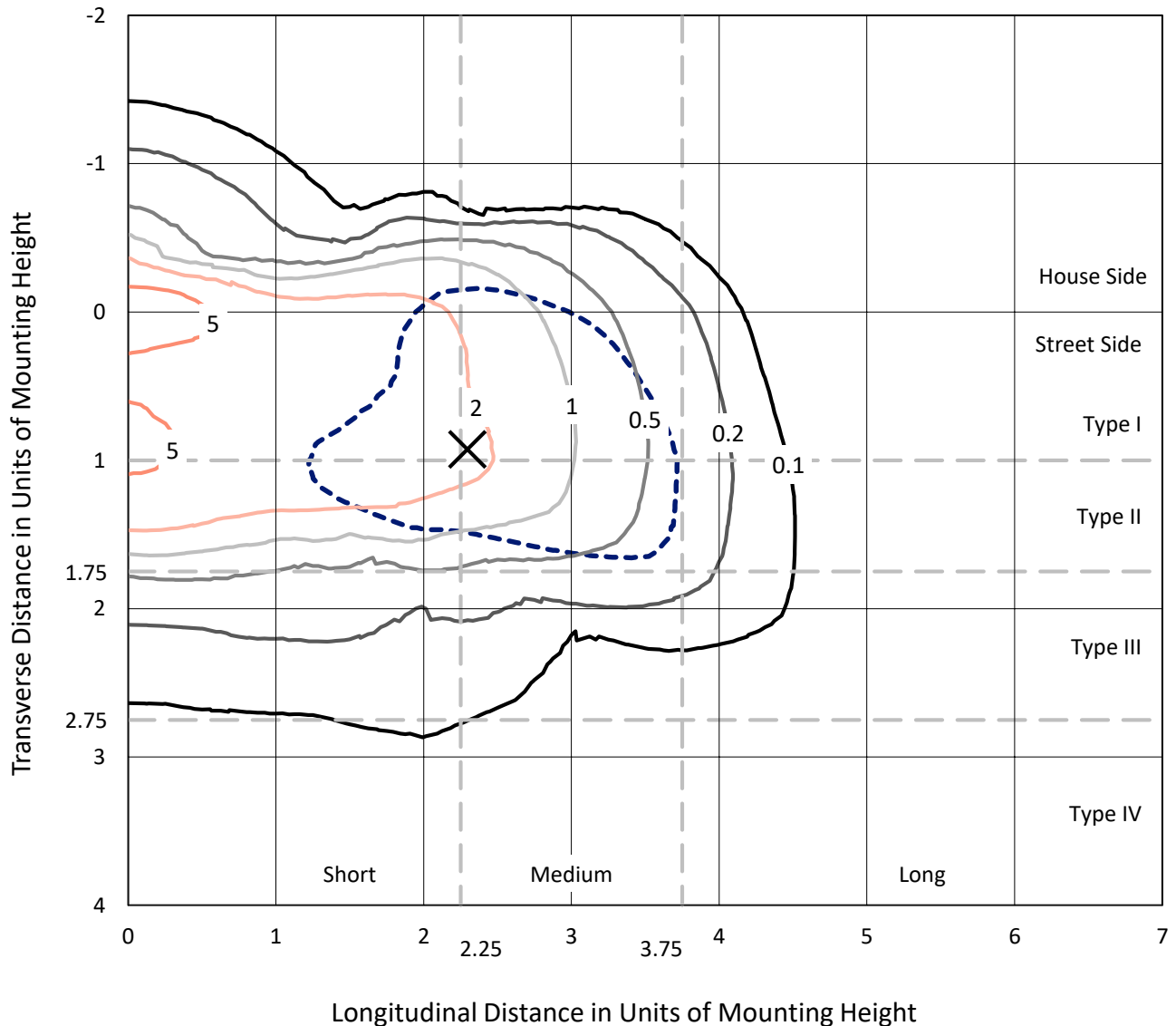


REPORT NUMBER: P197052

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800

Iso-Footcandle Lines of Horizontal Illumination

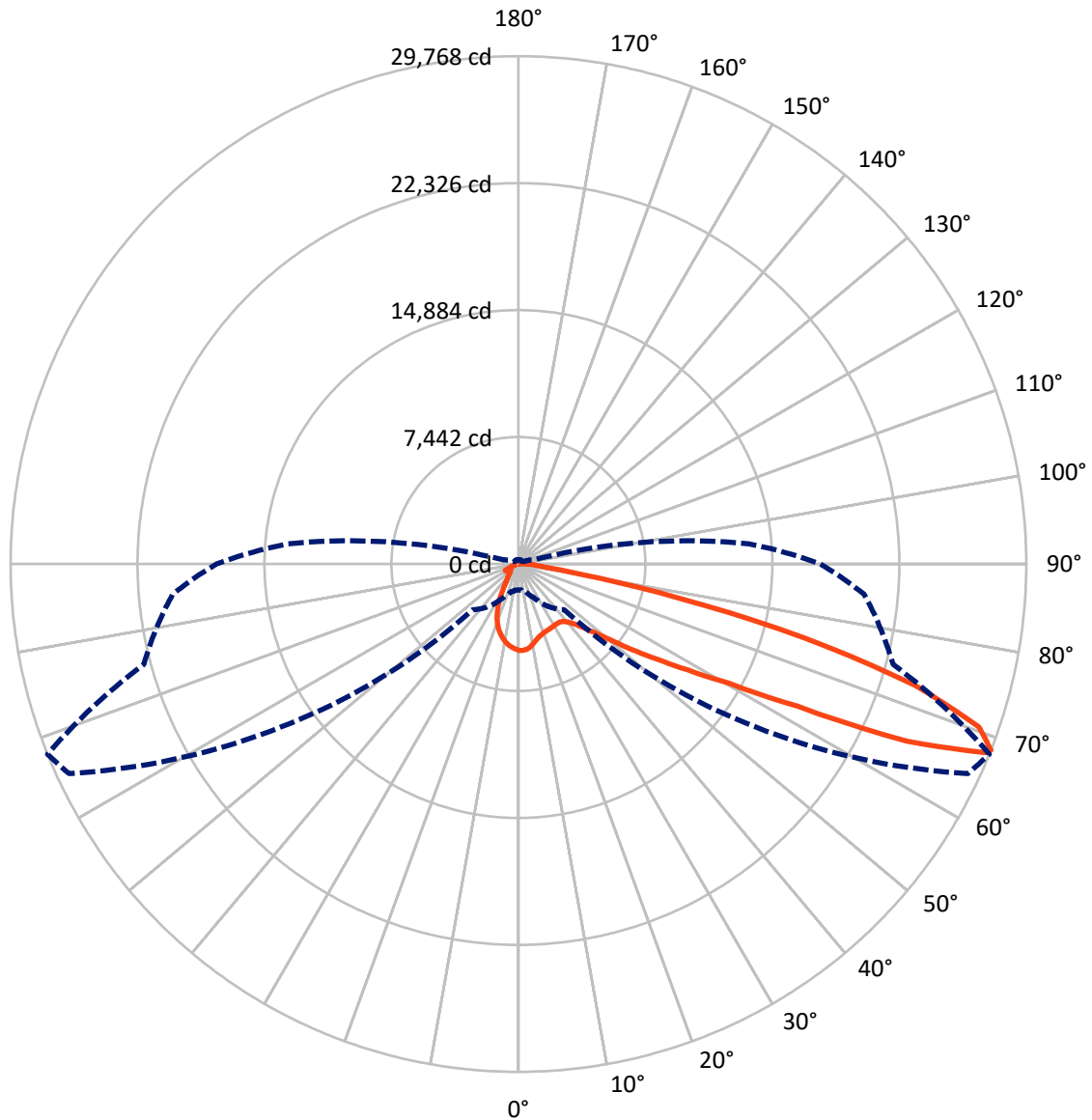
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P197052
CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P197052

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3809.0	0.0	3809.0
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	19473.0	0.0	19473.0
	% Fixture	83.6	0.0	83.6
Total	Lumens	23282.0	0.0	23282.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	434.1	1.9
10°-20°	1006.8	4.3
20°-30°	1361.6	5.8
30°-40°	1919.8	8.2
40°-50°	3156.9	13.6
50°-60°	4893.4	21.0
60°-70°	6344.7	27.3
70°-80°	3640.9	15.6
80°-90°	523.8	2.3
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°-90°	23282.0	100.0
0°-180°	23282.0	100.0

Coefficient of Utilization



REPORT NUMBER: P197052

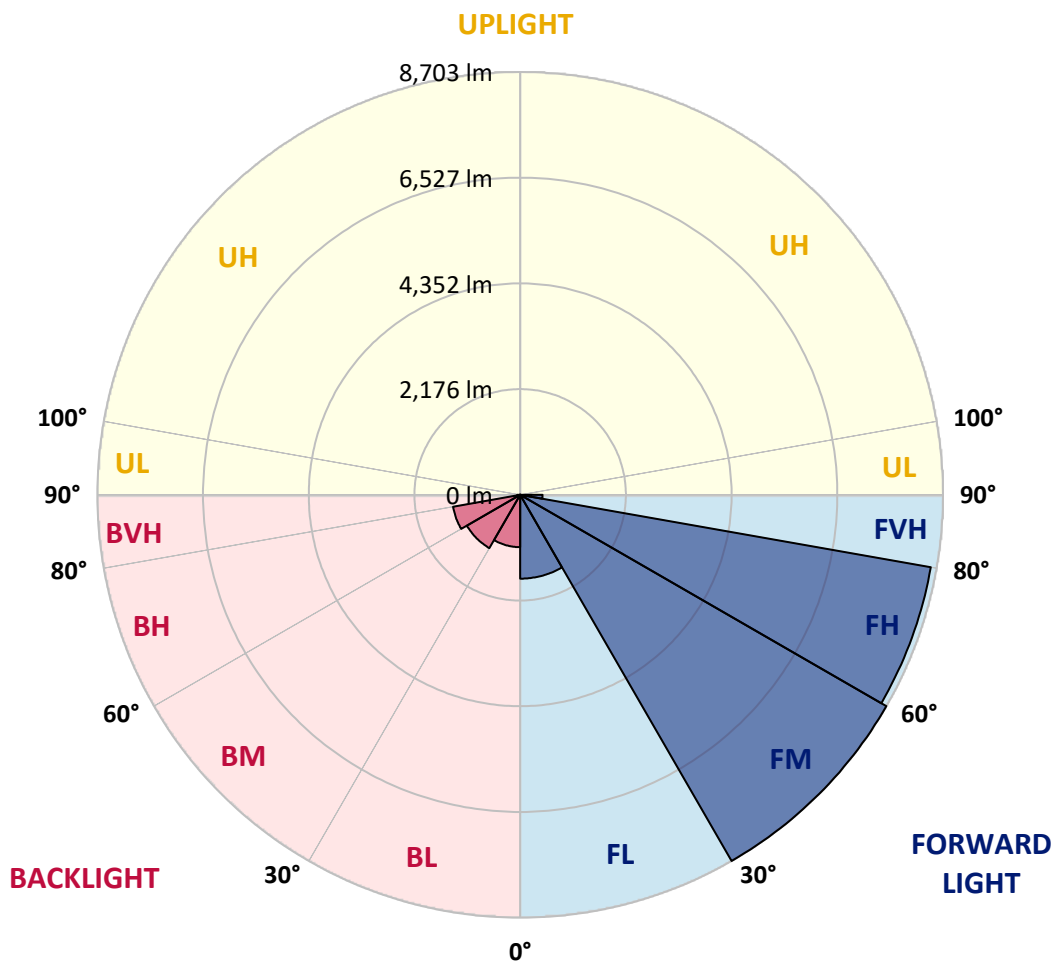
CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1725.6	7.4			
FM	(30°-60°)	8703.2	37.4			
FH	(60°-80°)	8582.8	36.9			G4/12000
FVH	(80°-90°)	461.4	2.0			G3/500
BL	(0°-30°)	1076.8	4.6	B3/2500		
BM	(30°-60°)	1266.9	5.4	B2/2500		
BH	(60°-80°)	1402.8	6.0	B3/2500		G3/2500
BVH	(80°-90°)	62.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium





REPORT NUMBER: P197052

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0
2.5°	4930.6	4970.1	4970.1	4999.0	5024.9	5046.2	5064.4	5064.4	5064.4	5052.3	5041.6
5°	4412.0	4465.2	4472.8	4545.8	4641.6	4758.7	4889.5	5005.1	5027.9	5070.5	5087.2
7.5°	4051.5	4068.3	4097.2	4147.4	4244.7	4389.2	4594.5	4853.0	4915.4	5049.2	5119.2
10°	3796.0	3809.7	3834.1	3884.3	3972.5	4103.3	4305.5	4641.6	4745.1	4982.3	5120.7
12.5°	3609.0	3619.6	3642.4	3688.1	3777.8	3894.9	4101.7	4451.5	4579.3	4915.4	5142.0
15°	3463.0	3481.2	3499.5	3543.6	3634.8	3747.4	3957.3	4313.1	4451.5	4862.2	5181.5
17.5°	3405.2	3414.3	3417.4	3440.2	3522.3	3636.4	3846.2	4215.8	4358.8	4819.6	5212.0
20°	3441.7	3443.2	3412.8	3397.6	3444.7	3549.7	3753.5	4142.8	4288.8	4781.6	5224.1
22.5°	3601.4	3601.4	3522.3	3455.4	3423.4	3488.8	3691.1	4092.6	4250.8	4752.7	5224.1
25°	3905.5	3891.9	3768.7	3636.4	3494.9	3467.5	3651.6	4060.7	4221.9	4737.5	5204.4
27.5°	4305.5	4293.4	4136.7	3940.5	3685.0	3513.2	3637.9	4034.8	4193.0	4714.6	5161.8
30°	4792.2	4781.6	4603.6	4346.6	3969.4	3657.6	3669.8	4016.6	4170.2	4676.6	5090.3
32.5°	5277.4	5271.3	5129.8	4866.7	4361.8	3902.5	3753.5	4013.5	4158.0	4631.0	5003.6
35°	5765.5	5765.5	5678.9	5456.8	4889.5	4270.6	3928.4	4069.8	4180.8	4606.7	4929.1
37.5°	6486.4	6457.5	6296.3	6066.7	5554.1	4748.1	4211.2	4188.4	4269.0	4647.7	4904.7
40°	7602.7	7519.1	7116.1	6729.8	6279.6	5359.5	4624.9	4418.1	4466.7	4787.6	4962.5
42.5°	8770.7	8638.4	8104.6	7487.2	7029.4	6113.8	5167.9	4790.7	4789.2	5058.4	5146.6
45°	9773.0	9704.6	9126.6	8343.4	7885.6	6962.5	5853.8	5344.3	5289.5	5478.1	5500.9
47.5°	10355.5	10309.9	9961.6	9249.8	8901.5	7964.7	6723.7	6112.3	6008.9	6121.4	6086.4
50°	10194.3	10238.4	10138.0	9774.5	9993.5	9373.0	7832.4	7164.7	6968.5	7081.1	6995.9
52.5°	9345.6	9464.3	9554.0	9623.9	10621.6	11257.3	9225.5	8478.7	8316.0	8296.2	8214.1
55°	7817.2	8005.8	8288.6	8802.7	10452.8	12770.6	11658.8	10068.0	9830.8	9706.1	9738.0
57.5°	5319.9	5605.9	6215.7	7193.6	9575.3	13415.4	15257.2	12121.2	11719.7	11275.6	11379.0
60°	2930.7	3169.5	3894.9	4880.4	7572.3	13319.6	18446.4	15457.9	14194.1	13017.0	13229.9
62.5°	1896.5	1948.2	2488.1	3333.7	4647.7	11759.2	20218.2	21034.9	18356.7	15313.5	15613.1
65°	1523.9	1560.4	1825.0	2688.9	3237.9	7564.7	20297.3	26820.2	25054.5	18434.2	18443.4
67.5°	1488.9	1505.6	1659.2	2261.5	3037.1	4118.5	17544.5	29101.5	29510.6	22117.7	20336.8
68°	1510.2	1530.0	1685.1	2191.5	3035.6	3796.0	16215.3	29066.5	29767.6	22733.7	20336.8
70°	1332.3	1356.6	1718.6	2267.6	2906.3	3263.7	11103.7	27522.8	28651.3	24149.6	19296.6
72.5°	696.5	676.8	850.2	1790.0	3271.4	3400.6	5865.9	22993.8	24310.8	22365.6	16671.6
75°	542.9	494.3	476.0	707.2	2877.5	3526.9	3406.7	16343.1	17337.7	16122.5	11143.3
77.5°	511.0	451.7	416.7	418.2	1266.9	3669.8	2755.8	9617.9	9617.9	7690.9	3555.8
80°	410.6	355.9	333.1	380.2	611.4	3382.4	2875.9	4383.1	3738.3	1987.8	979.4
82.5°	270.7	241.8	243.3	308.7	463.9	2258.5	3330.7	2164.2	1625.8	880.6	576.4
85°	171.9	147.5	164.3	216.0	346.8	1006.8	3297.2	1504.1	1076.8	494.3	287.4
87.5°	86.7	66.9	82.1	112.5	211.4	289.0	2714.7	1342.9	798.4	205.3	156.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P197052

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-8030-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0	5066.0
2.5°	5041.6	5008.2	4991.4	4964.1	4930.6	4897.1	4874.3	4863.7	4857.6	4860.6	4859.1
5°	5078.1	5034.0	4962.5	4860.6	4755.7	4644.7	4559.5	4494.1	4453.1	4440.9	4437.8
7.5°	5105.5	5041.6	4907.8	4722.2	4542.8	4348.1	4182.3	4050.0	3960.3	3919.2	3917.7
10°	5100.9	5018.8	4807.4	4533.7	4270.6	3984.6	3724.6	3502.5	3341.3	3263.7	3260.7
12.5°	5105.5	4993.0	4684.2	4313.1	3936.0	3526.9	3140.6	2795.3	2555.0	2441.0	2436.4
15°	5123.7	4965.6	4558.0	4066.8	3545.1	2967.2	2415.1	1981.7	1762.7	1688.1	1688.1
17.5°	5122.2	4920.0	4412.0	3780.8	3081.2	2307.1	1648.6	1380.9	1359.6	1428.1	1438.7
20°	5091.8	4847.0	4223.4	3441.7	2536.8	1596.9	1117.8	1079.8	1250.1	1438.7	1460.0
22.5°	5044.7	4752.7	4005.9	3047.8	1902.6	1040.3	862.3	920.1	1151.3	1385.5	1419.0
25°	4979.3	4638.6	3756.5	2590.0	1265.3	748.3	719.4	790.8	953.6	1110.2	1134.6
27.5°	4883.5	4494.1	3484.3	2094.2	807.6	615.9	626.6	676.8	746.7	813.7	827.3
30°	4763.3	4325.3	3187.7	1545.2	612.9	550.5	568.8	599.2	629.6	672.2	681.3
32.5°	4641.6	4153.4	2879.0	1061.6	535.3	515.6	533.8	550.5	576.4	605.3	611.4
35°	4532.1	3993.8	2561.1	740.7	501.9	492.8	501.9	512.5	538.4	567.3	570.3
37.5°	4453.1	3863.0	2229.6	585.5	482.1	473.0	477.5	482.1	512.5	555.1	559.7
40°	4442.4	3776.3	1893.5	526.2	466.9	454.7	451.7	454.7	494.3	542.9	547.5
42.5°	4545.8	3780.8	1565.0	501.9	454.7	441.0	428.9	435.0	469.9	508.0	511.0
45°	4790.7	3887.3	1280.6	491.2	444.1	433.4	415.2	418.2	435.0	454.7	457.8
47.5°	5222.6	4120.0	1063.1	485.2	435.0	425.8	403.0	393.9	395.4	406.1	406.1
50°	5913.1	4509.3	930.8	479.1	427.4	410.6	384.8	366.5	362.0	368.0	369.6
52.5°	6942.7	5177.0	866.9	466.9	413.7	390.9	362.0	343.7	336.1	342.2	342.2
55°	8334.3	6243.1	836.5	450.2	396.9	366.5	340.7	325.5	319.4	323.9	323.9
57.5°	9920.5	7628.6	888.2	427.4	375.7	340.7	322.4	311.8	307.2	311.8	313.3
60°	11804.8	9441.4	1244.1	398.5	352.8	317.9	307.2	301.1	298.1	302.6	302.6
62.5°	14309.7	11853.5	1925.4	375.7	328.5	296.6	293.5	290.5	287.4	292.0	292.0
65°	17013.8	14048.1	1981.7	362.0	307.2	278.3	279.8	279.8	276.8	281.4	281.4
67.5°	17874.6	13858.0	1107.2	345.2	281.4	260.1	266.1	266.1	264.6	269.2	267.7
68°	17692.1	13556.9	964.2	340.7	276.8	255.5	261.6	263.1	261.6	266.1	264.6
70°	16332.4	11902.2	634.2	314.8	257.0	240.3	249.4	250.9	249.4	255.5	254.0
72.5°	13482.3	8927.4	468.4	275.3	232.7	220.5	229.6	231.2	232.7	238.8	237.3
75°	8562.4	4930.6	369.6	234.2	208.4	197.7	206.8	211.4	214.4	223.6	219.0
77.5°	2345.2	1496.5	299.6	199.2	179.5	174.9	181.0	187.1	190.1	200.8	193.1
80°	821.3	661.6	249.4	168.8	149.0	147.5	153.6	159.7	162.7	171.9	162.7
82.5°	498.8	431.9	199.2	132.3	117.1	115.6	123.2	129.3	132.3	132.3	126.2
85°	260.1	228.1	146.0	92.8	80.6	76.0	89.7	97.3	98.9	97.3	92.8
87.5°	146.0	129.3	77.6	44.1	36.5	38.0	47.1	57.8	62.4	60.8	57.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)