

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: P196427

Luminaire Tested: **NAV-AF-05-D-UNV-5NQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196427
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-05-D-UNV-5NQ-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24155 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 210
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

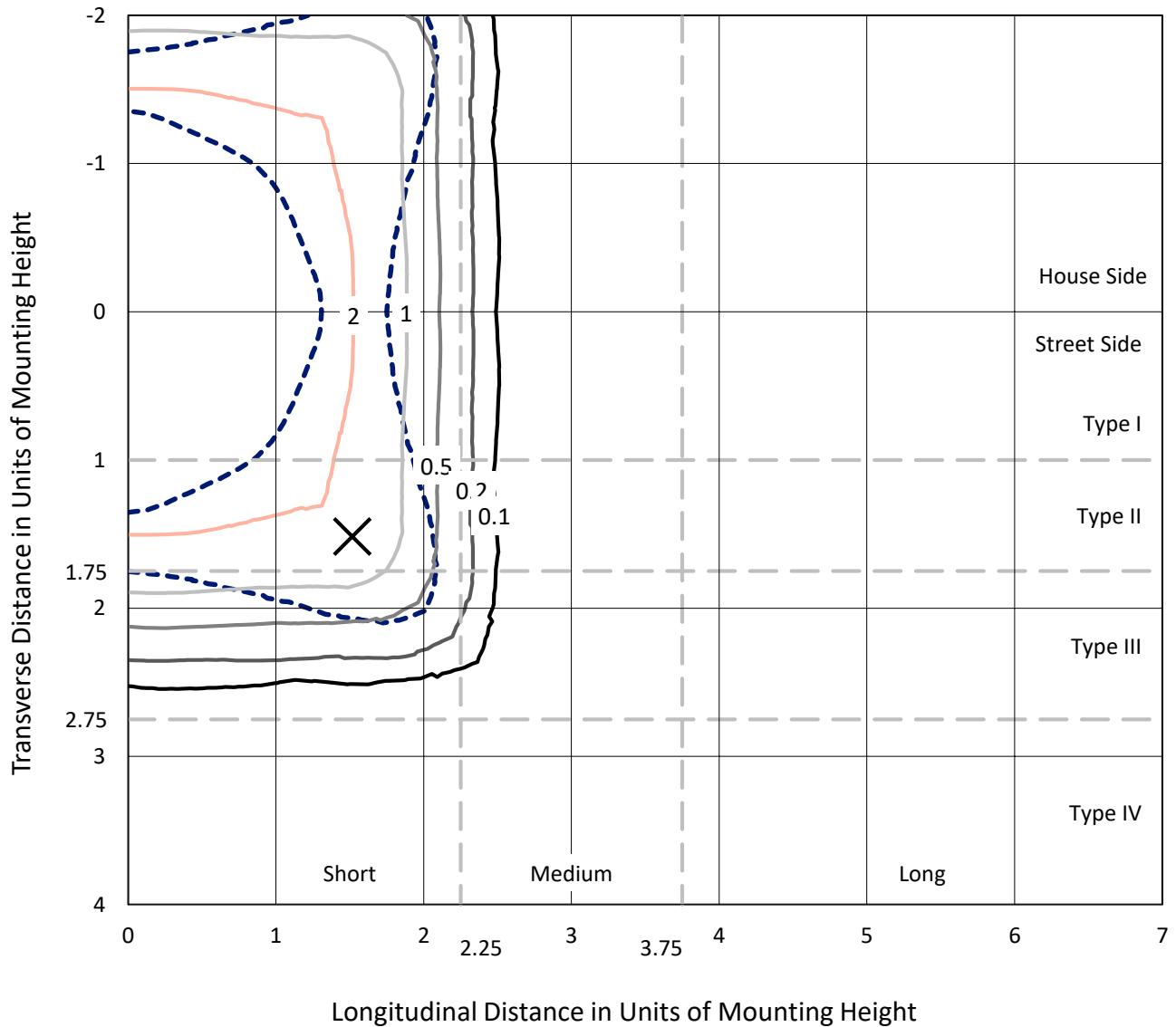


REPORT NUMBER: P196427

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030-800

Iso-Footcandle Lines of Horizontal Illumination

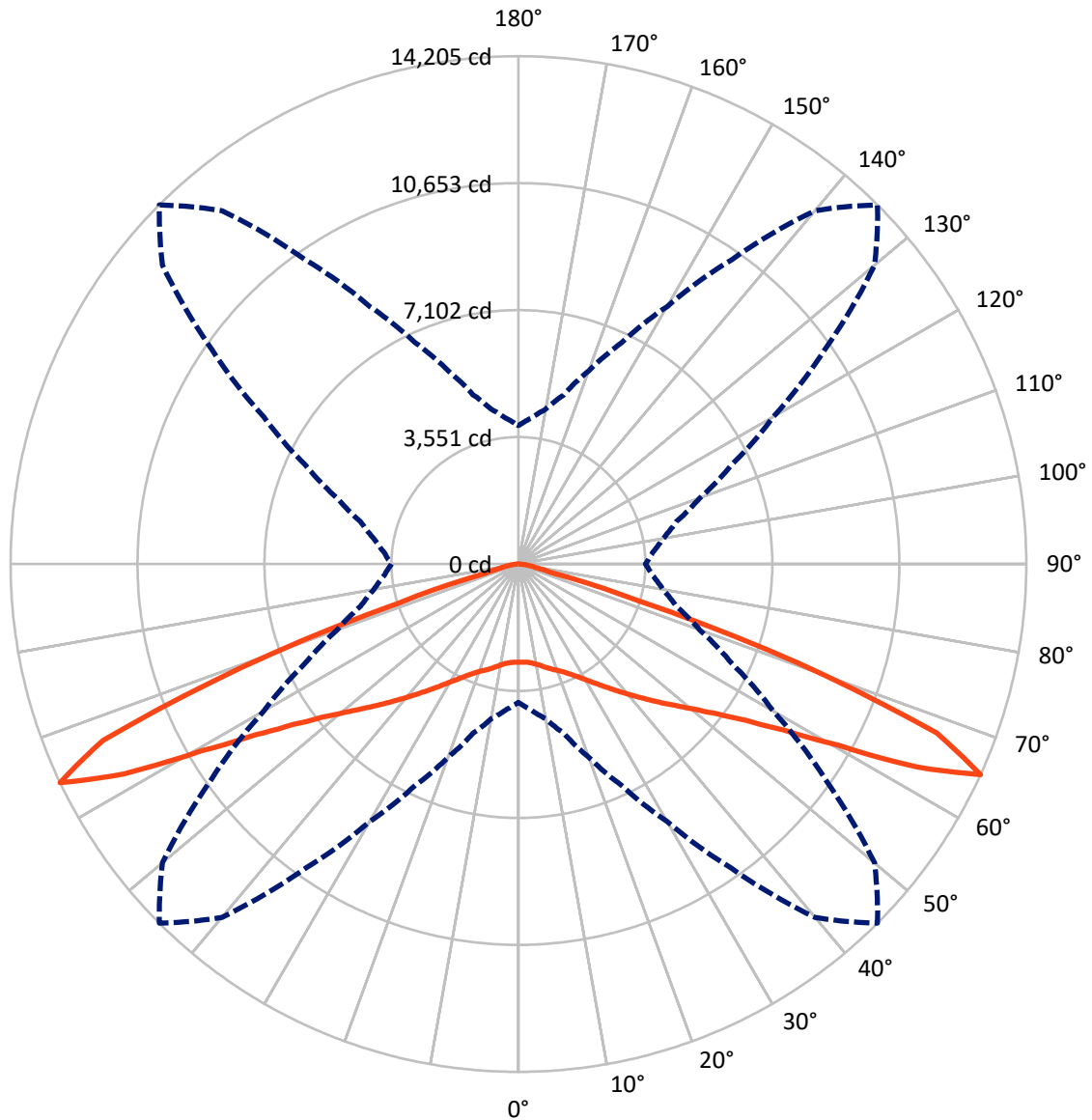
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196427
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12077.5	0.0	12077.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12077.5	0.0	12077.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	24155.0	0.0	24155.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.6	1.1
10°-20°	857.6	3.6
20°-30°	1599.7	6.6
30°-40°	2697.4	11.2
40°-50°	4381.4	18.1
50°-60°	6864.9	28.4
60°-70°	6480.1	26.8
70°-80°	873.3	3.6
80°-90°	133.0	0.6
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°	24155.0	100.0
0°-180°	24155.0	100.0



REPORT NUMBER: P196427

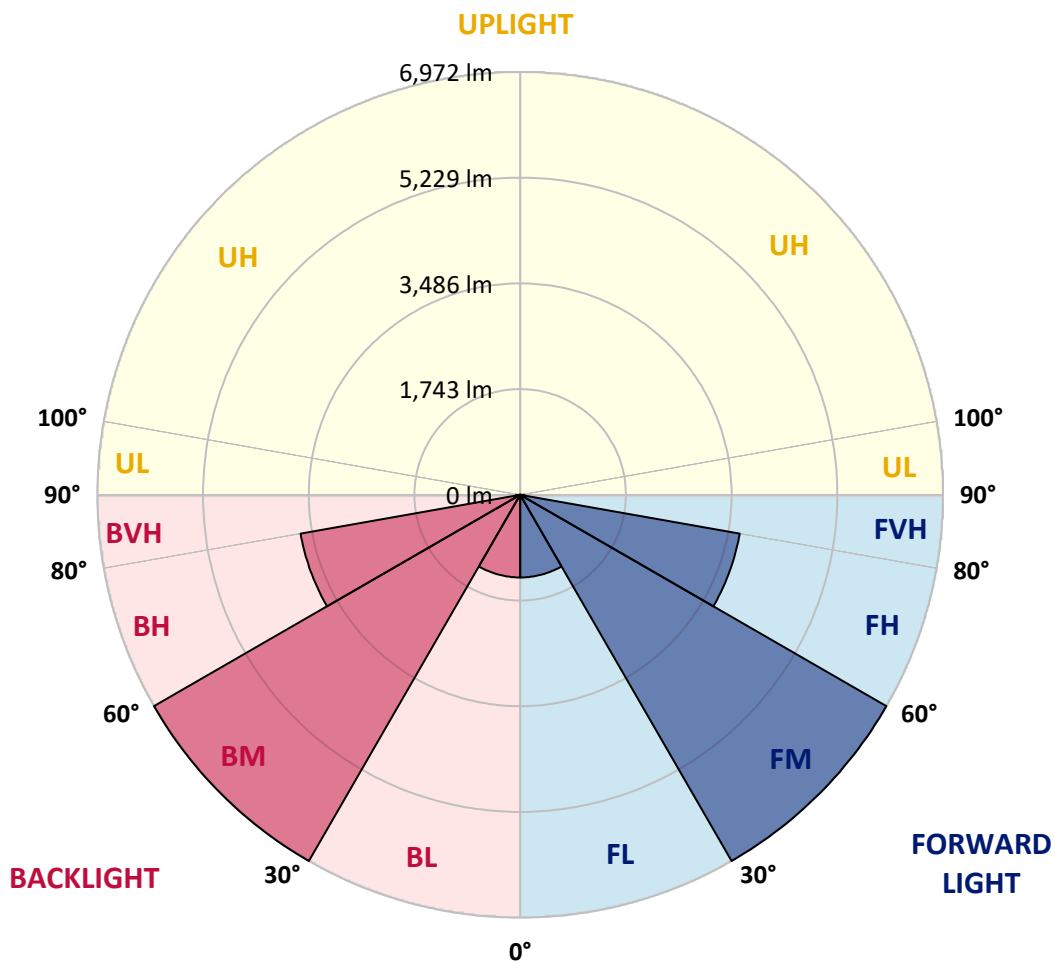
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1362.4	5.6			
FM	(30°-60°)	6971.8	28.9			
FH	(60°-80°)	3676.7	15.2			G2/5000
FVH	(80°-90°)	66.5	0.3			G1/100
BL	(0°-30°)	1362.4	5.6	B3/2500		
BM	(30°-60°)	6971.8	28.9	B4/8500		
BH	(60°-80°)	3676.7	15.2	B4/5000		G2/5000
BVH	(80°-90°)	66.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P196427

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7
2.5°	2770.2	2770.2	2774.6	2773.2	2767.2	2762.6	2758.1	2752.1	2749.1	2746.1	2744.6
5°	2785.2	2785.2	2789.7	2788.2	2783.7	2777.7	2774.6	2770.2	2765.7	2762.6	2764.2
7.5°	2822.8	2824.4	2825.9	2824.4	2819.9	2815.3	2809.3	2807.8	2801.7	2797.2	2800.4
10°	2880.1	2880.1	2881.5	2883.1	2880.1	2869.4	2869.4	2866.5	2860.4	2854.4	2855.9
12.5°	2943.2	2943.2	2944.7	2944.7	2944.7	2938.7	2940.1	2938.7	2931.2	2928.1	2931.2
15°	3004.9	3006.4	3006.4	3009.4	3009.4	3010.9	3016.9	3016.9	3013.9	3012.4	3012.4
17.5°	3077.2	3080.1	3081.6	3086.1	3087.6	3090.7	3096.7	3098.1	3099.6	3095.2	3096.7
20°	3173.4	3175.0	3179.5	3181.0	3187.0	3187.0	3190.1	3188.5	3185.5	3179.5	3179.5
22.5°	3281.8	3284.8	3293.8	3293.8	3301.4	3296.8	3298.3	3293.8	3286.3	3283.2	3280.3
25°	3423.2	3427.8	3435.2	3432.3	3435.2	3427.8	3427.8	3427.8	3423.2	3418.7	3417.2
27.5°	3602.3	3594.7	3602.3	3596.3	3594.7	3588.7	3590.3	3587.2	3582.7	3581.2	3575.2
30°	3788.9	3779.9	3784.3	3785.9	3782.9	3781.4	3775.4	3770.9	3763.3	3764.7	3760.2
32.5°	4002.5	3993.5	3998.1	3999.6	3996.4	3999.6	3998.1	3987.5	3978.4	3984.4	3984.4
35°	4256.8	4250.8	4262.9	4267.3	4258.4	4253.8	4247.8	4235.8	4222.3	4231.3	4232.8
37.5°	4562.3	4554.8	4563.8	4575.9	4559.3	4550.2	4526.2	4508.1	4499.1	4503.5	4509.6
40°	4879.7	4881.2	4906.9	4909.9	4891.9	4881.2	4857.2	4830.2	4804.5	4804.5	4812.1
42.5°	5213.9	5218.3	5248.5	5258.9	5252.9	5233.4	5200.3	5167.2	5134.1	5140.1	5149.2
45°	5591.6	5585.5	5617.1	5642.7	5638.3	5632.1	5600.5	5540.3	5510.3	5508.8	5523.8
47.5°	5988.7	6000.8	6034.0	6077.5	6076.0	6060.9	6020.4	5964.7	5909.0	5913.5	5931.5
50°	6452.2	6468.8	6524.4	6568.1	6574.1	6569.5	6521.4	6456.6	6378.4	6383.0	6407.1
52.5°	6867.5	6891.6	6956.3	7046.5	7102.3	7127.8	7096.3	7036.1	6956.3	6960.8	6986.4
55°	7243.7	7281.2	7377.6	7500.9	7612.3	7716.2	7762.9	7761.3	7702.7	7716.2	7749.3
57.5°	7479.9	7532.6	7678.5	7877.1	8098.4	8307.5	8488.2	8658.1	8695.7	8766.4	8766.4
60°	7162.4	7285.9	7479.9	7820.0	8254.9	8724.4	9233.0	9728.0	10046.9	10298.2	10162.9
62.5°	5981.3	6163.4	6435.7	6884.1	7561.2	8399.3	9421.0	10572.2	11772.9	12507.1	11968.5
65°	3870.1	4098.9	4395.3	4899.3	5752.5	6831.4	8319.5	10388.6	12901.5	14204.5	13000.8
67.5°	1533.4	1688.3	1868.9	2226.9	2967.3	4026.6	5696.9	8248.8	11392.1	12621.5	11271.8
70°	732.8	758.4	793.0	869.7	1054.8	1423.4	2288.7	4064.2	6986.4	8282.0	6819.3
72.5°	529.7	534.2	550.7	576.4	630.4	705.7	857.6	1243.0	2409.0	3503.0	2412.0
75°	401.7	407.7	416.9	430.4	458.9	495.1	552.2	662.1	824.6	951.0	823.0
77.5°	305.5	311.5	319.0	332.5	347.6	373.1	394.2	437.9	507.1	534.2	531.1
80°	222.7	233.3	245.3	257.3	267.8	279.9	281.4	302.4	341.6	367.1	359.6
82.5°	141.5	150.4	182.0	195.6	197.1	200.2	198.7	200.2	221.1	239.3	233.3
85°	90.2	96.2	112.9	128.0	124.9	130.9	130.9	128.0	118.9	102.2	122.0
87.5°	45.2	46.7	54.2	67.7	64.7	57.2	55.7	55.7	40.7	34.6	37.5
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: P196427

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7	2747.7
2.5°	2740.1	2743.1	2738.6	2738.6	2737.1	2740.1	2735.6	2735.6
5°	2761.2	2765.7	2764.2	2764.2	2767.2	2770.2	2768.6	2767.2
7.5°	2798.7	2801.7	2804.8	2806.4	2809.3	2807.8	2810.8	2809.3
10°	2855.9	2853.0	2857.4	2853.0	2854.4	2851.4	2853.0	2853.0
12.5°	2928.1	2923.7	2920.6	2917.7	2917.7	2911.6	2911.6	2913.2
15°	3010.9	3003.4	2997.4	2994.4	2991.4	2991.4	2986.8	2989.9
17.5°	3092.1	3084.7	3074.1	3074.1	3069.6	3066.6	3063.6	3071.2
20°	3178.0	3170.4	3164.3	3162.9	3153.9	3150.8	3152.3	3161.4
22.5°	3277.2	3272.8	3272.8	3269.7	3263.7	3259.2	3259.2	3269.7
25°	3411.2	3402.2	3403.7	3405.2	3402.2	3402.2	3399.2	3406.7
27.5°	3575.2	3567.7	3572.2	3575.2	3572.2	3576.7	3572.2	3578.2
30°	3767.8	3763.3	3767.8	3772.2	3764.7	3764.7	3761.8	3766.2
32.5°	3998.1	3992.0	3995.1	3995.1	3984.4	3975.4	3963.4	3972.4
35°	4250.8	4243.3	4249.3	4253.8	4241.8	4232.8	4214.6	4222.3
37.5°	4529.3	4532.2	4539.7	4559.3	4556.2	4541.3	4527.7	4533.7
40°	4840.6	4855.7	4888.8	4902.4	4899.3	4884.3	4866.2	4869.2
42.5°	5192.8	5212.3	5246.9	5269.5	5258.9	5237.9	5215.4	5224.3
45°	5576.5	5606.5	5651.7	5674.3	5660.7	5638.3	5606.5	5623.1
47.5°	5982.7	6042.9	6103.1	6133.2	6128.7	6097.1	6056.5	6060.9
50°	6468.8	6548.6	6625.3	6655.3	6632.8	6584.6	6527.4	6525.9
52.5°	7073.7	7159.4	7222.6	7215.2	7159.4	7084.2	7019.5	7016.5
55°	7829.0	7857.6	7848.6	7783.8	7686.1	7568.7	7485.9	7472.5
57.5°	8742.4	8646.1	8504.6	8309.0	8089.3	7866.6	7716.2	7660.5
60°	9858.9	9424.0	8918.4	8385.7	7899.8	7535.6	7305.4	7165.4
62.5°	10781.2	9521.8	8391.7	7466.3	6709.5	6259.6	5945.2	5751.0
65°	10465.3	8226.2	6589.1	5395.9	4569.8	4104.9	3772.2	3551.2
67.5°	8084.8	5496.8	3824.9	2651.2	2010.3	1701.8	1486.7	1346.7
70°	4076.3	2108.1	1277.5	901.3	770.4	716.2	680.1	659.1
72.5°	1196.3	799.0	663.5	586.8	540.2	507.1	485.9	475.5
75°	662.1	540.2	477.0	433.3	403.2	380.7	367.1	358.2
77.5°	455.9	392.7	361.1	332.5	308.4	291.9	281.4	272.4
80°	319.0	287.4	273.8	258.8	240.8	227.3	212.2	206.2
82.5°	212.2	198.7	195.6	183.5	173.0	158.0	130.9	122.0
85°	124.9	123.4	123.4	118.9	111.3	97.8	78.2	78.2
87.5°	43.6	45.2	46.7	49.6	48.2	40.7	33.1	31.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)