

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: P196534

Luminaire Tested: **NAV-AF-04-D-UNV-RW-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-04-D-UNV-RW-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26450.6 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

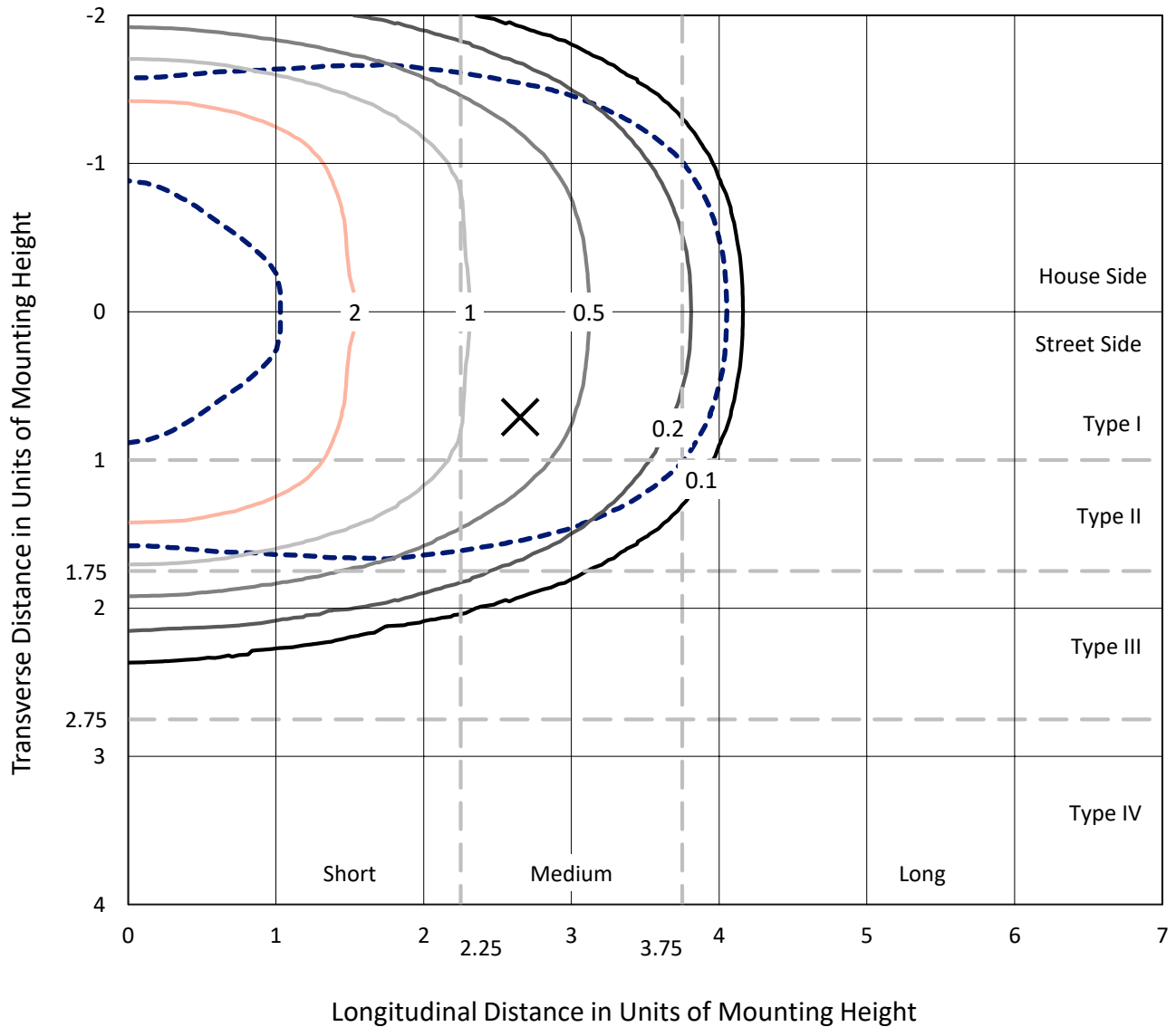
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

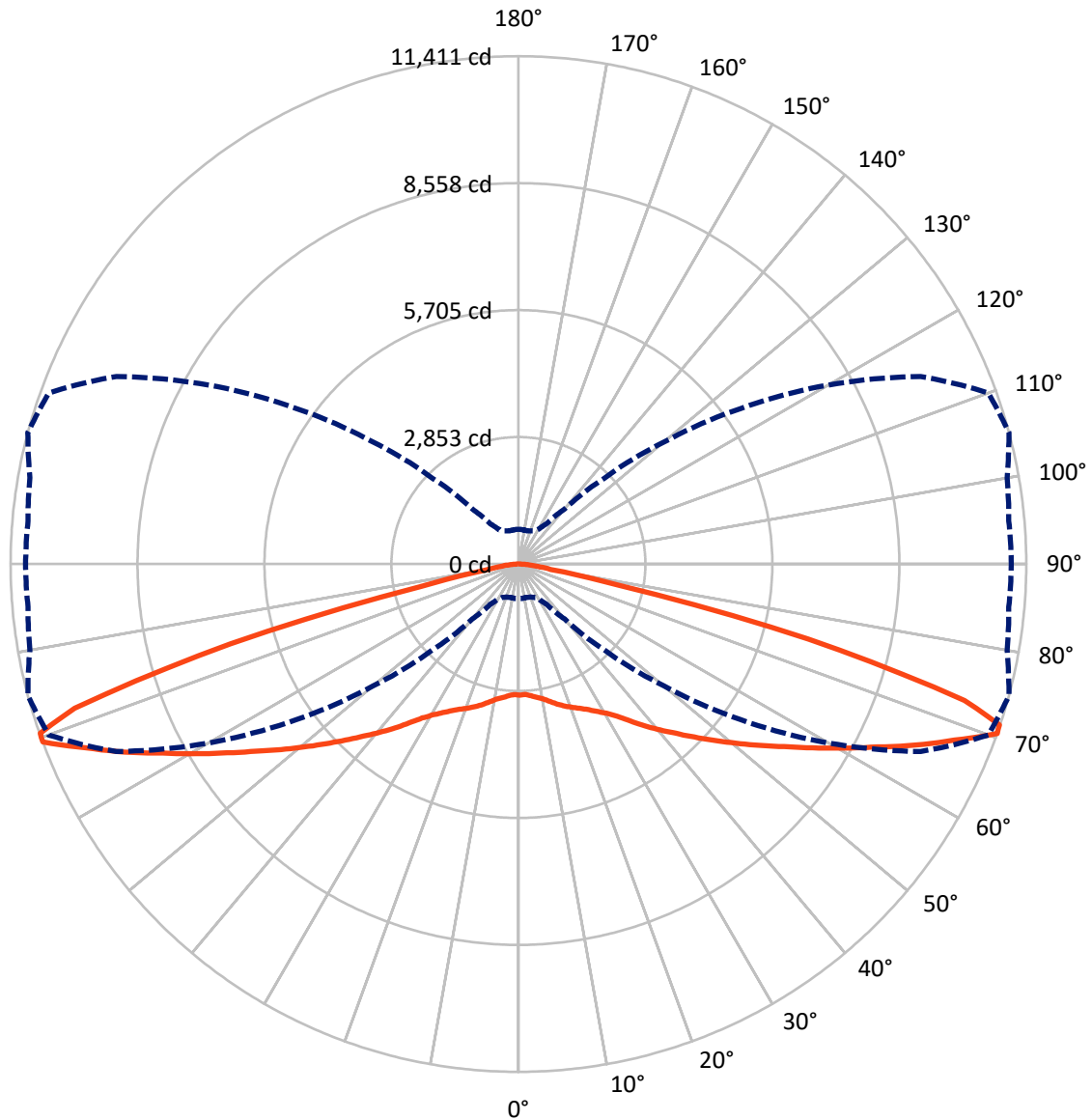
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13225.3	0.0	13225.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13225.3	0.0	13225.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	26450.6	0.0	26450.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.5	1.1
10°-20°	876.2	3.3
20°-30°	1645.7	6.2
30°-40°	2898.9	11.0
40°-50°	4804.5	18.2
50°-60°	6683.7	25.3
60°-70°	6309.5	23.9
70°-80°	2694.9	10.2
80°-90°	254.6	1.0
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°	26450.6	100.0
0°-180°	26450.6	100.0

Coefficient of Utilization



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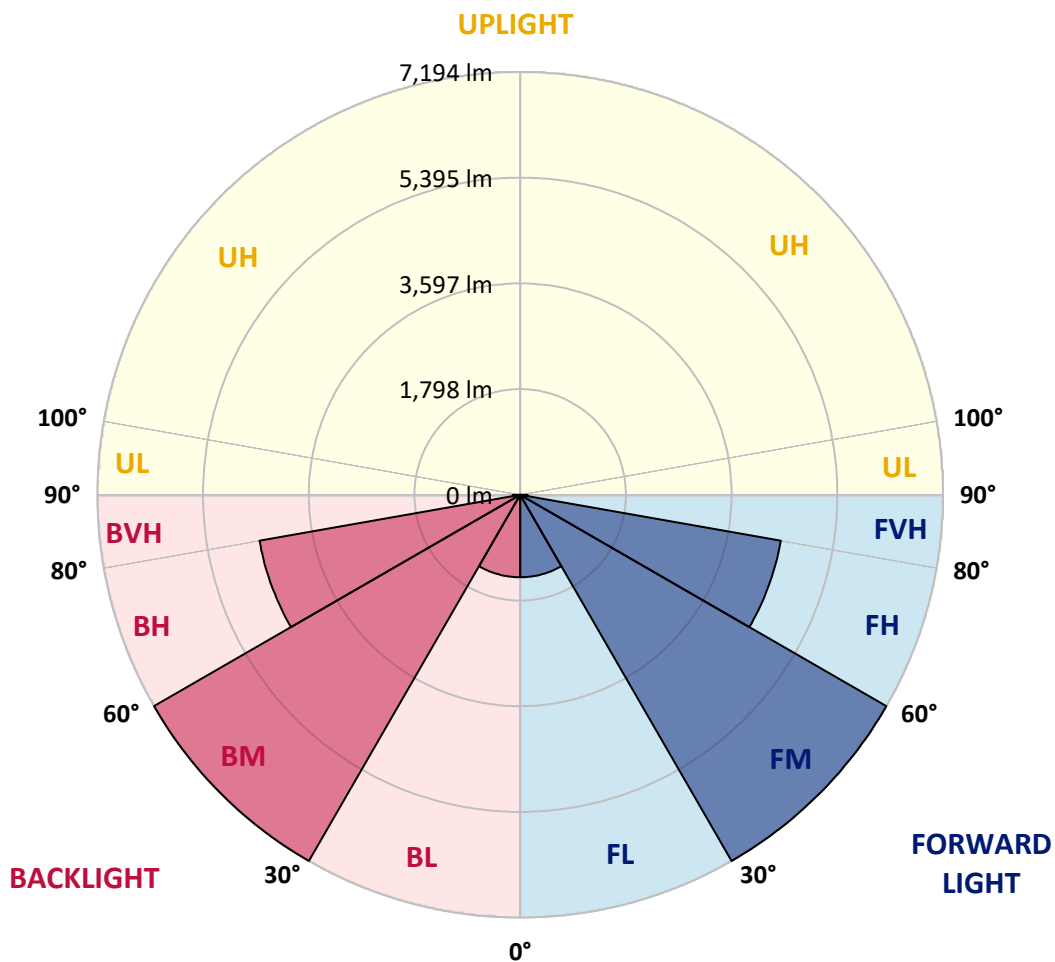
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1402.2	5.3			
FM	(30°-60°)	7193.5	27.2			
FH	(60°-80°)	4502.2	17.0			G2/5000
FVH	(80°-90°)	127.3	0.5			G2/225
BL	(0°-30°)	1402.2	5.3	B3/2500		
BM	(30°-60°)	7193.5	27.2	B4/8500		
BH	(60°-80°)	4502.2	17.0	B4/5000		G4/5000
BVH	(80°-90°)	127.3	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5
2.5°	2963.7	2962.1	2963.7	2958.7	2960.5	2958.7	2958.7	2952.1	2952.1	2948.8	2943.9
5°	2930.7	2933.9	2933.9	2933.9	2938.8	2938.8	2945.5	2947.2	2952.1	2957.1	2960.5
7.5°	2875.9	2877.6	2882.6	2885.9	2895.8	2909.0	2922.3	2937.2	2950.5	2967.1	2985.3
10°	2829.5	2832.8	2841.1	2849.4	2867.6	2884.2	2907.4	2930.7	2953.9	2982.0	3010.2
12.5°	2804.6	2809.6	2822.8	2836.2	2864.3	2885.9	2917.3	2953.9	2985.3	3011.8	3043.3
15°	2808.0	2809.6	2827.8	2846.1	2885.9	2915.7	2960.5	3003.5	3041.7	3071.5	3108.0
17.5°	2856.0	2859.4	2877.6	2904.1	2942.3	2980.4	3028.4	3073.1	3124.6	3159.3	3202.5
20°	2950.5	2955.5	2975.3	3003.5	3044.9	3084.7	3134.5	3180.9	3234.0	3275.4	3318.5
22.5°	3073.1	3081.4	3103.0	3137.8	3179.2	3227.3	3278.7	3326.7	3376.5	3417.9	3454.4
25°	3237.3	3247.1	3270.4	3305.2	3346.6	3398.1	3451.1	3500.7	3552.2	3583.7	3613.5
27.5°	3457.7	3474.3	3499.1	3527.3	3563.8	3618.5	3668.3	3709.7	3759.4	3794.2	3814.1
30°	3754.4	3777.6	3797.6	3827.4	3853.9	3911.9	3951.7	3984.8	4022.9	4042.8	4047.8
32.5°	4117.4	4139.0	4158.9	4180.5	4216.9	4270.0	4308.1	4326.3	4346.3	4342.8	4324.6
35°	4526.8	4543.4	4555.0	4593.2	4652.8	4687.7	4715.8	4722.5	4725.8	4690.9	4656.2
37.5°	4957.8	4977.8	4987.6	5047.3	5103.7	5143.5	5156.7	5171.7	5161.7	5103.7	5040.6
40°	5423.6	5445.2	5475.0	5526.5	5592.7	5630.7	5647.4	5645.8	5637.4	5569.5	5466.7
42.5°	5881.1	5907.6	5932.4	6022.1	6076.7	6141.4	6149.6	6148.0	6129.8	6051.9	5932.4
45°	6269.0	6300.4	6351.9	6451.3	6539.1	6617.1	6648.5	6660.2	6642.0	6559.1	6423.2
47.5°	6588.9	6610.4	6675.0	6796.2	6908.8	7023.1	7086.2	7131.0	7129.2	7069.6	6925.4
50°	6807.7	6832.5	6912.2	7048.1	7188.9	7323.2	7447.5	7548.6	7596.7	7553.6	7419.4
52.5°	6870.7	6902.2	7006.6	7169.0	7333.2	7513.9	7699.5	7878.4	7986.2	8012.7	7908.3
55°	6605.5	6640.3	6792.7	7018.3	7288.3	7555.3	7837.0	8092.3	8314.4	8417.3	8375.9
57.5°	5833.1	5857.9	6051.9	6343.6	6729.9	7198.9	7672.9	8140.4	8521.6	8788.5	8834.9
60°	4613.0	4644.5	4856.7	5165.0	5604.4	6197.7	6860.7	7626.6	8374.1	8985.8	9289.1
62.5°	3112.9	3134.5	3338.4	3620.2	4100.8	4672.7	5412.0	6381.8	7447.5	8539.9	9395.2
65°	1634.4	1634.4	1771.9	1969.2	2352.2	2864.3	3621.8	4616.4	5884.3	7248.6	8679.1
67.5°	948.2	946.5	978.0	1022.7	1143.7	1350.9	1768.7	2499.7	3699.7	5287.7	6915.4
70°	782.4	777.4	772.5	772.5	790.7	822.1	901.7	1102.3	1612.8	2726.7	4255.0
71°	747.6	744.3	731.0	726.0	734.3	750.9	785.7	878.6	1145.4	1859.8	3177.6
72.5°	706.2	697.8	678.0	669.6	671.3	678.0	687.9	724.4	805.6	1057.5	1811.7
75°	643.1	623.3	598.4	586.8	581.8	580.1	580.1	590.1	608.3	638.2	742.6
77.5°	570.3	542.0	515.4	503.9	495.6	490.7	487.3	480.7	477.4	490.7	528.9
80°	482.4	452.6	430.9	424.4	419.3	409.4	396.2	383.0	374.6	381.2	404.5
82.5°	373.0	343.1	346.5	348.1	339.8	323.2	310.0	295.0	280.1	276.9	288.5
85°	296.7	281.8	271.8	293.4	275.2	255.2	237.0	212.2	177.3	145.9	159.1
87.5°	127.7	129.3	185.6	280.1	245.3	197.2	164.1	132.6	84.5	63.1	64.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5	2945.5
2.5°	2942.3	2942.3	2937.2	2933.9	2933.9	2933.9	2930.7	2932.3
5°	2962.1	2965.4	2968.7	2967.1	2972.1	2977.0	2975.3	2973.7
7.5°	2995.3	3005.1	3015.1	3020.2	3026.7	3033.4	3035.0	3030.1
10°	3028.4	3048.4	3063.2	3076.5	3084.7	3091.4	3096.4	3094.7
12.5°	3069.8	3098.0	3124.6	3151.0	3169.3	3179.2	3189.2	3185.9
15°	3137.8	3169.3	3202.5	3237.3	3265.4	3280.4	3295.3	3292.0
17.5°	3230.7	3258.7	3285.3	3320.2	3355.0	3371.5	3388.1	3386.5
20°	3346.6	3368.3	3383.1	3403.0	3436.2	3454.4	3469.3	3464.4
22.5°	3479.3	3485.9	3487.5	3494.2	3520.7	3542.3	3562.2	3567.1
25°	3623.5	3618.5	3608.7	3603.6	3621.8	3645.0	3669.9	3676.6
27.5°	3802.6	3786.0	3761.0	3741.1	3746.2	3776.0	3804.2	3810.8
30°	4028.0	3989.8	3936.7	3898.6	3892.1	3923.5	3953.3	3963.3
32.5°	4284.8	4233.5	4160.6	4102.5	4077.7	4105.9	4132.4	4147.3
35°	4589.9	4533.5	4445.6	4371.0	4331.2	4349.5	4395.9	4412.6
37.5°	4951.2	4873.3	4775.5	4681.0	4614.7	4618.1	4667.8	4687.7
40°	5350.7	5238.0	5113.7	4996.0	4899.8	4893.1	4938.0	4952.8
42.5°	5766.7	5622.5	5476.6	5322.4	5203.2	5181.6	5239.6	5241.2
45°	6214.3	6028.6	5848.0	5668.9	5544.6	5506.4	5562.8	5569.5
47.5°	6691.7	6459.6	6245.8	6051.9	5917.6	5857.9	5912.6	5922.5
50°	7188.9	6948.6	6700.0	6484.4	6326.9	6254.1	6318.7	6325.3
52.5°	7681.3	7454.2	7207.2	6960.3	6769.6	6686.6	6762.9	6786.2
55°	8176.9	7958.1	7726.0	7479.1	7238.7	7165.8	7248.6	7273.5
57.5°	8692.3	8481.9	8271.4	8022.7	7789.0	7677.9	7767.5	7802.2
60°	9261.0	9075.3	8876.3	8626.1	8395.7	8266.3	8342.6	8382.4
62.5°	9819.5	9781.4	9600.7	9340.5	9048.8	8919.5	8984.1	9012.2
65°	9866.0	10484.2	10475.9	10217.4	9809.7	9592.4	9610.7	9624.0
67.5°	8611.2	10030.0	10936.8	11017.9	10563.8	10223.9	10184.2	10192.5
70°	6096.5	8044.2	9968.7	11231.9	11410.8	11147.2	11061.1	11074.3
71°	4884.9	6902.2	9020.6	10719.7	11397.6	11321.3	11273.3	11308.0
72.5°	3117.9	5085.5	7147.5	9179.8	10480.9	10854.0	10908.6	10930.1
75°	1132.2	2188.0	3703.1	5305.9	6724.8	7701.1	8238.1	8281.3
77.5°	608.3	784.1	1211.6	1810.1	2274.2	2522.8	2552.8	2564.4
80°	447.5	518.9	593.4	678.0	731.0	740.9	722.8	684.6
82.5°	316.7	358.1	387.9	417.7	439.2	420.9	349.7	266.9
85°	184.0	202.2	218.8	233.7	237.0	223.8	147.5	121.0
87.5°	72.9	79.5	77.9	87.9	84.5	77.9	58.0	49.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)