

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: P197080

Luminaire Tested: **NAV-AF-04-D-UNV-SL3-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197080
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
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-SL3-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16900 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 225
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

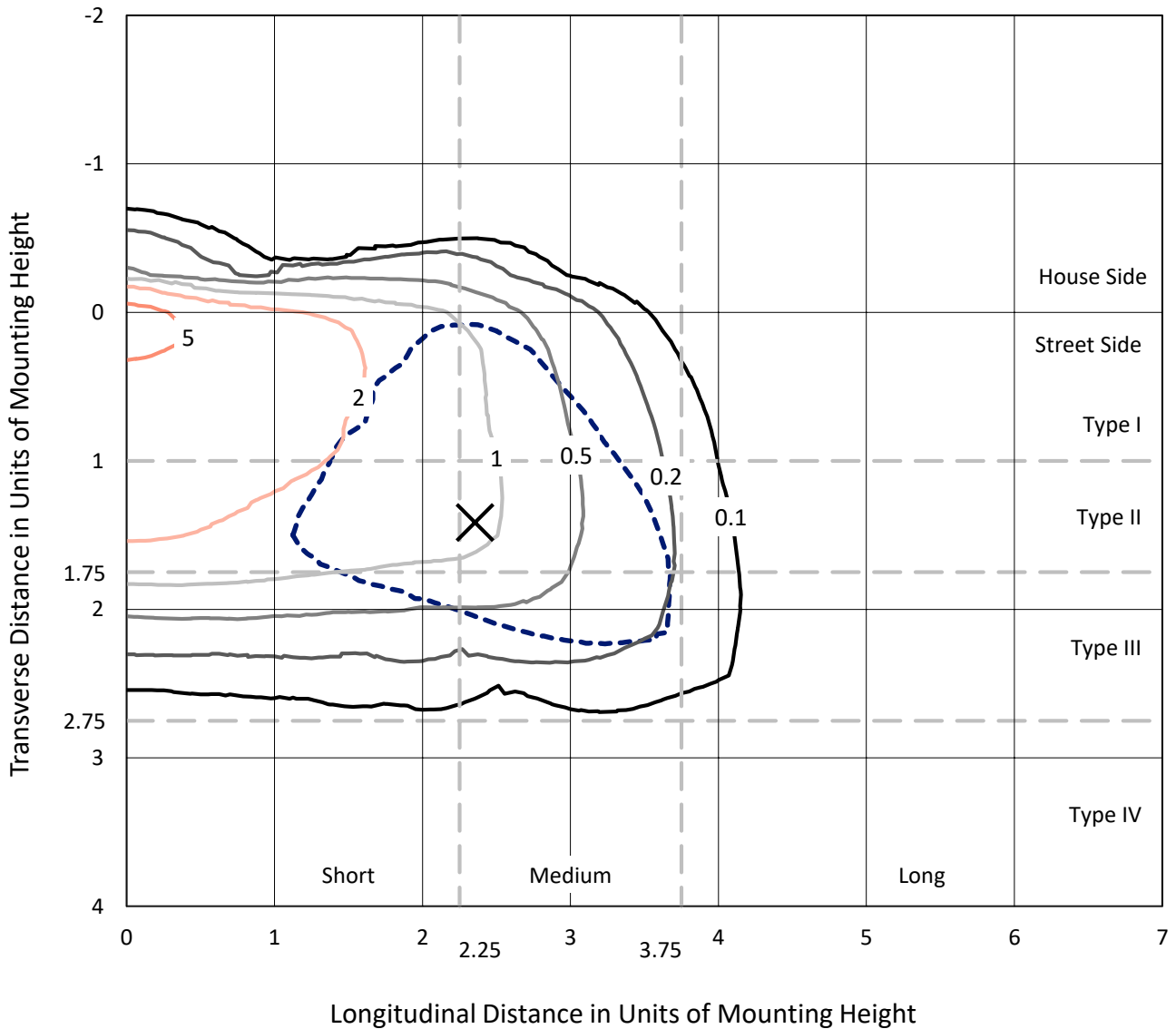


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Iso-Footcandle Lines of Horizontal Illumination

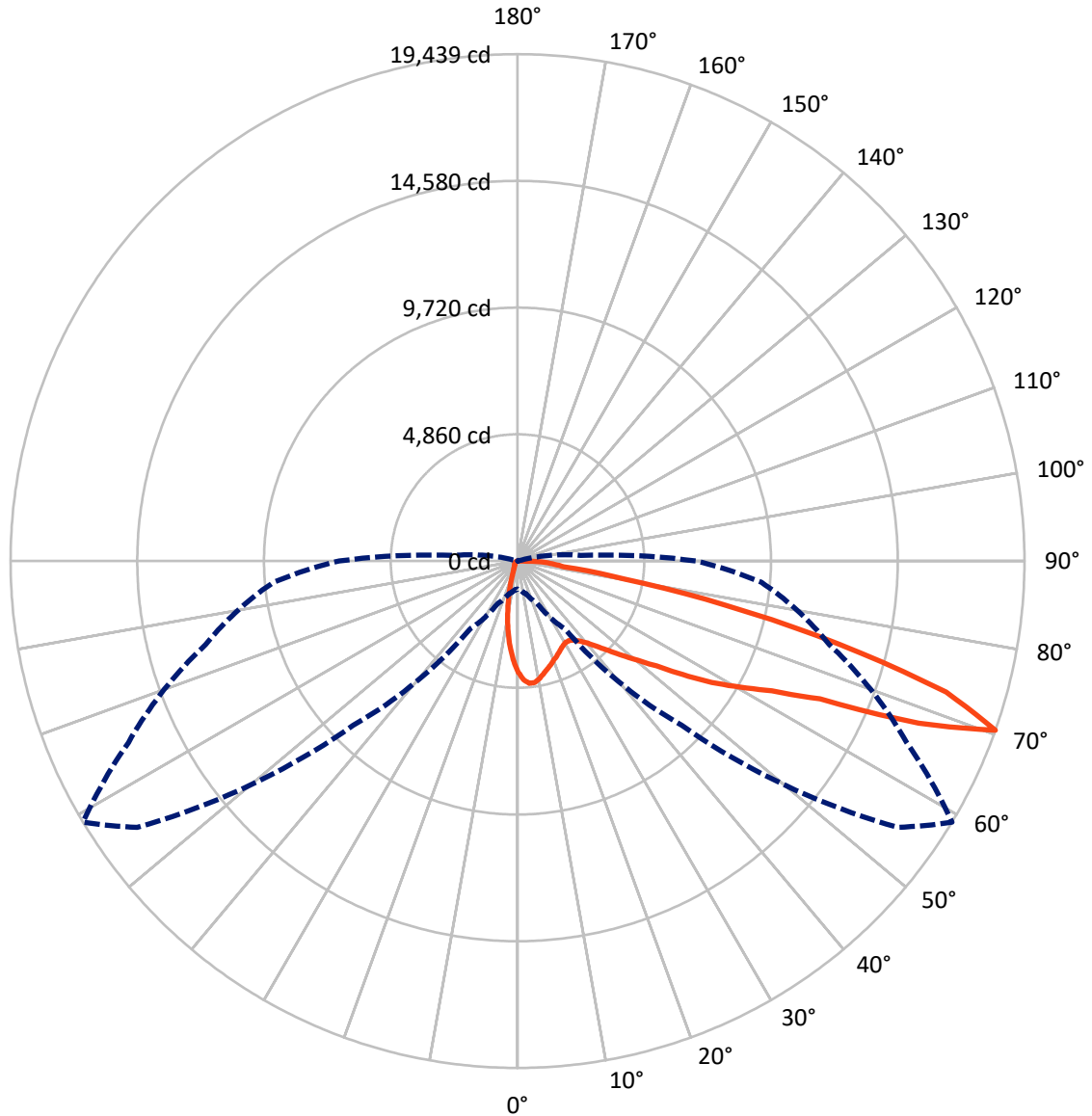
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1299.1	0.0	1299.1
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	15600.8	0.0	15600.8
	% Fixture	92.3	0.0	92.3
Total	Lumens	16900.0	0.0	16900.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.4	2.1
10°-20°	737.0	4.4
20°-30°	997.7	5.9
30°-40°	1439.9	8.5
40°-50°	2391.3	14.1
50°-60°	3657.7	21.6
60°-70°	4549.3	26.9
70°-80°	2514.9	14.9
80°-90°	260.8	1.5
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°	16900.0	100.0
0°-180°	16900.0	100.0



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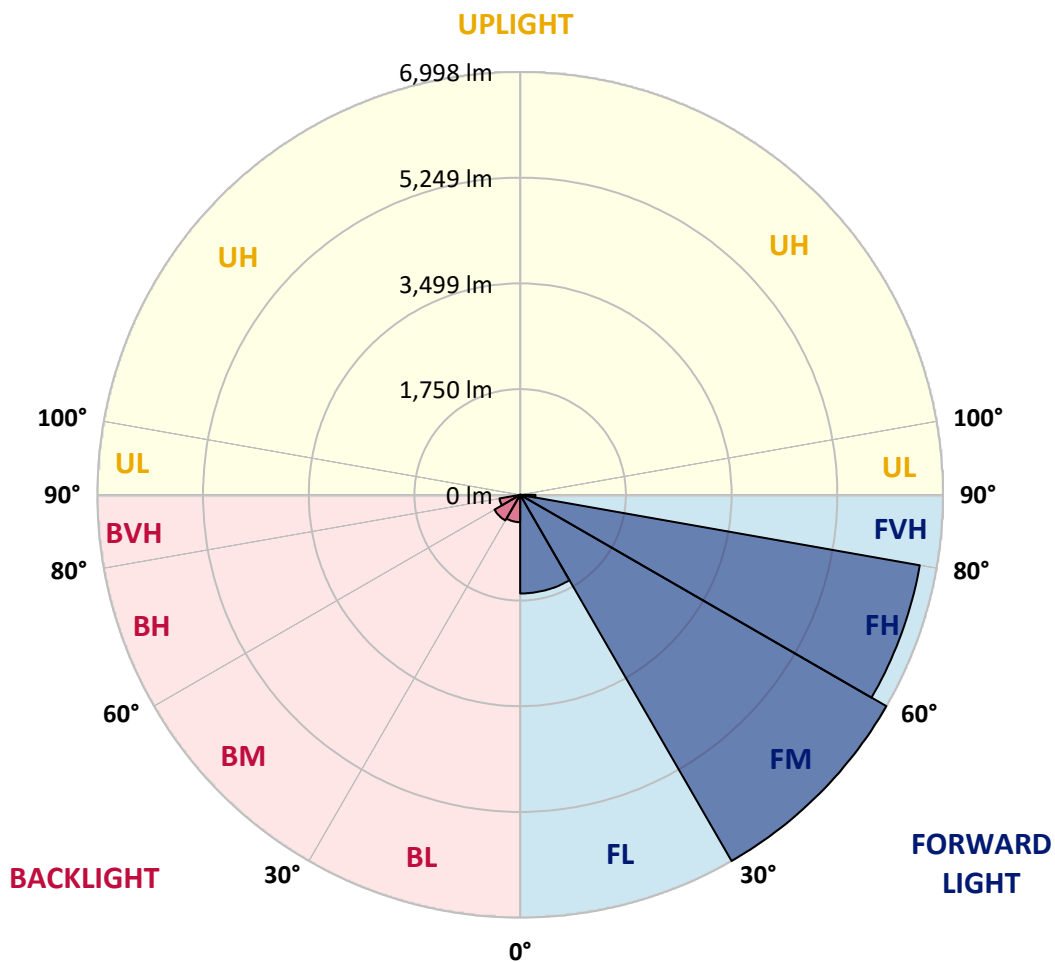
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1633.4	9.7			
FM	(30°-60°)	6998.5	41.4			
FH	(60°-80°)	6715.7	39.7			G3/7500
FVH	(80°-90°)	253.2	1.5			G3/500
BL	(0°-30°)	452.7	2.7	B1/500		
BM	(30°-60°)	490.4	2.9	B1/1000		
BH	(60°-80°)	348.5	2.1	B1/500		G1/500
BVH	(80°-90°)	7.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4
2.5°	4830.5	4822.9	4791.0	4784.6	4748.9	4677.5	4594.7	4561.5	4494.0	4386.9	4268.3
5°	4910.8	4914.7	4917.2	4903.2	4898.1	4839.4	4747.7	4708.1	4617.6	4441.7	4225.0
7.5°	4610.0	4620.2	4652.0	4666.1	4727.3	4750.2	4731.1	4705.6	4634.2	4426.4	4121.7
10°	4292.5	4311.6	4346.1	4369.0	4444.2	4505.4	4583.2	4589.6	4574.3	4375.4	4005.7
12.5°	4019.7	4037.5	4075.8	4121.7	4198.2	4277.2	4393.2	4434.0	4485.0	4342.2	3922.8
15°	3785.1	3790.2	3827.2	3884.6	3985.3	4093.6	4231.3	4291.3	4390.7	4329.5	3859.1
17.5°	3579.9	3581.1	3605.4	3657.6	3780.0	3922.8	4083.4	4162.5	4288.7	4311.6	3803.0
20°	3444.7	3443.5	3444.7	3472.8	3581.1	3750.7	3945.8	4028.6	4190.5	4290.0	3745.6
22.5°	3398.8	3392.5	3363.1	3352.9	3421.8	3570.9	3804.2	3912.6	4102.6	4283.6	3703.5
25°	3454.9	3451.1	3388.6	3330.0	3336.4	3429.4	3660.2	3792.8	4033.7	4306.5	3693.3
27.5°	3636.0	3628.3	3532.7	3418.0	3345.3	3361.9	3553.1	3692.1	3978.9	4362.6	3707.4
30°	3873.1	3874.4	3772.4	3633.4	3462.6	3368.2	3495.7	3627.0	3941.9	4446.8	3738.0
32.5°	4137.0	4135.7	4063.0	3902.4	3684.4	3485.5	3521.2	3632.1	3947.0	4570.4	3796.6
35°	4409.8	4395.8	4371.6	4230.1	3975.1	3690.8	3637.2	3718.8	4000.6	4733.6	3896.0
37.5°	4724.7	4719.6	4743.8	4594.7	4334.6	3992.9	3841.2	3896.0	4135.7	4974.6	4056.7
40°	5225.7	5197.7	5209.2	5006.5	4740.0	4399.6	4126.8	4140.8	4351.2	5293.3	4310.4
42.5°	6180.6	6067.2	5854.3	5474.3	5186.2	4850.9	4500.3	4476.1	4655.9	5679.6	4644.4
45°	7321.6	7191.6	6654.9	5990.7	5632.4	5335.4	4961.8	4896.8	5030.7	6139.8	5075.3
47.5°	8274.0	8133.7	7422.4	6529.9	6086.3	5835.1	5473.1	5396.6	5479.4	6674.0	5592.9
50°	8599.1	8521.3	7896.6	6978.7	6544.0	6396.1	6114.3	5986.8	6007.2	7250.2	6197.2
52.5°	8449.9	8423.1	8005.0	7285.9	6967.2	7015.7	6816.8	6682.9	6660.0	7880.0	6865.2
55°	8135.0	8122.3	7918.3	7456.8	7340.8	7583.0	7802.3	7686.3	7469.5	8549.4	7417.3
57.5°	7685.0	7733.4	7880.0	7785.7	7799.7	8182.2	8717.6	8777.6	8453.7	9082.3	7826.5
60°	6482.8	6612.8	7284.7	8138.8	8792.9	9179.1	9698.0	9810.2	9287.5	9446.9	8299.5
62.5°	4792.3	4978.4	5935.8	7505.2	9339.8	11074.9	11002.2	10952.5	10083.0	9935.1	9160.0
65°	2814.9	3032.9	3842.5	5864.5	8514.9	12293.7	13437.2	12748.8	11295.4	10950.0	10530.5
67.5°	1402.4	1403.6	1769.5	3095.4	6292.8	11443.3	16991.6	16593.9	13873.3	12445.4	11071.1
70°	1078.5	1107.9	1309.3	1798.9	3182.1	8912.7	17806.3	19439.4	16463.8	12379.1	9393.3
72.5°	914.1	933.2	1165.2	1565.6	2378.9	4893.0	15414.6	17182.8	15710.4	10459.1	6923.9
75°	657.8	673.1	1031.4	1420.2	2190.2	2427.4	10573.9	12743.7	11787.6	7357.3	3810.6
77.5°	163.2	161.9	359.5	1152.5	1959.5	2022.0	6067.2	8172.0	6763.2	3012.5	979.1
80°	72.7	70.1	81.6	242.2	1823.1	1908.5	2668.3	4126.8	2594.4	488.3	299.6
82.5°	51.0	48.4	51.0	89.2	609.4	1770.8	1612.7	1788.7	949.8	167.0	127.5
85°	16.6	15.3	28.0	75.2	170.8	1021.2	1573.2	1336.1	706.3	71.4	85.4
87.5°	2.5	2.5	10.2	40.8	49.7	340.4	923.0	925.6	317.4	42.1	38.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4	4273.4
2.5°	4208.4	4133.2	4027.3	3921.5	3825.9	3727.8	3648.7	3611.7	3595.2	3572.2	3522.5
5°	4111.5	3975.1	3743.1	3514.8	3301.9	3098.0	2923.3	2823.9	2716.8	2711.7	2659.4
7.5°	3956.0	3762.2	3396.3	3041.9	2716.8	2405.7	2138.0	1964.6	1846.0	1772.1	1721.1
10°	3782.6	3534.0	3049.5	2551.0	2108.7	1693.0	1348.8	1124.4	988.0	919.2	879.7
12.5°	3644.9	3332.5	2707.8	2080.6	1526.0	1049.2	729.2	566.0	493.4	465.3	452.6
15°	3526.3	3147.7	2387.9	1659.9	1018.6	603.0	422.0	368.4	357.0	357.0	355.7
17.5°	3406.5	2969.2	2076.8	1246.8	641.3	395.2	332.7	325.1	326.4	330.2	330.2
20°	3293.0	2799.6	1777.2	888.6	420.7	316.2	302.1	299.6	303.4	308.5	307.2
22.5°	3201.2	2650.5	1496.7	610.7	323.8	286.8	277.9	274.1	276.6	280.5	279.2
25°	3136.2	2523.0	1239.2	425.8	281.7	261.4	251.2	246.1	243.5	246.1	244.8
27.5°	3096.7	2415.9	997.0	320.0	252.4	235.9	223.1	212.9	206.5	206.5	204.0
30°	3071.2	2315.2	781.5	265.2	228.2	210.4	192.5	178.5	168.3	165.7	164.5
32.5°	3069.9	2228.5	583.9	234.6	205.3	184.9	163.2	145.3	133.9	131.3	130.0
35°	3101.8	2158.4	429.6	211.6	184.9	160.6	136.4	117.3	107.1	107.1	105.8
37.5°	3184.7	2117.6	325.1	193.8	168.3	140.2	114.7	96.9	88.0	90.5	90.5
40°	3338.9	2109.9	265.2	179.8	154.3	122.4	93.1	79.0	75.2	79.0	79.0
42.5°	3574.8	2150.7	235.9	169.6	141.5	104.5	77.8	67.6	66.3	70.1	70.1
45°	3882.0	2231.0	219.3	160.6	127.5	86.7	65.0	58.6	57.4	62.5	62.5
47.5°	4254.3	2339.4	204.0	150.4	113.5	71.4	54.8	49.7	49.7	54.8	56.1
50°	4695.4	2486.0	188.7	140.2	102.0	59.9	45.9	42.1	43.3	48.4	49.7
52.5°	5202.8	2665.8	174.7	131.3	89.2	48.4	38.2	35.7	37.0	42.1	43.3
55°	5640.1	2822.6	158.1	122.4	72.7	39.5	31.9	30.6	31.9	38.2	38.2
57.5°	6021.3	2973.0	142.8	108.4	57.4	31.9	25.5	25.5	28.0	34.4	35.7
60°	6527.4	3210.2	130.0	91.8	43.3	24.2	20.4	21.7	25.5	30.6	31.9
62.5°	7423.6	3613.0	113.5	76.5	31.9	19.1	16.6	17.8	22.9	29.3	30.6
65°	8545.5	3994.2	94.3	63.7	24.2	14.0	12.7	16.6	22.9	29.3	30.6
67.5°	8430.8	3474.1	73.9	51.0	17.8	11.5	10.2	15.3	21.7	29.3	30.6
70°	6837.2	2435.0	54.8	34.4	14.0	10.2	10.2	15.3	21.7	28.0	29.3
72.5°	4742.6	1355.2	42.1	22.9	12.7	10.2	8.9	14.0	20.4	28.0	29.3
75°	2256.5	415.6	33.1	16.6	11.5	8.9	7.6	14.0	20.4	28.0	29.3
77.5°	433.5	105.8	26.8	14.0	10.2	8.9	7.6	12.7	20.4	26.8	28.0
80°	146.6	47.2	21.7	12.7	10.2	8.9	7.6	12.7	19.1	25.5	26.8
82.5°	80.3	26.8	19.1	11.5	10.2	7.6	6.4	11.5	17.8	25.5	26.8
85°	62.5	19.1	15.3	11.5	10.2	7.6	6.4	11.5	17.8	24.2	25.5
87.5°	31.9	14.0	12.7	11.5	10.2	7.6	6.4	10.2	16.6	22.9	25.5
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)