

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: P195648

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7050-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195648
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-06-D-UNV-SL3-7050-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5000K, 1200mA 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: 33545 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G5

Input Watts (W): 382
Input Voltage (V): NR
Input Current (A_{in}): 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

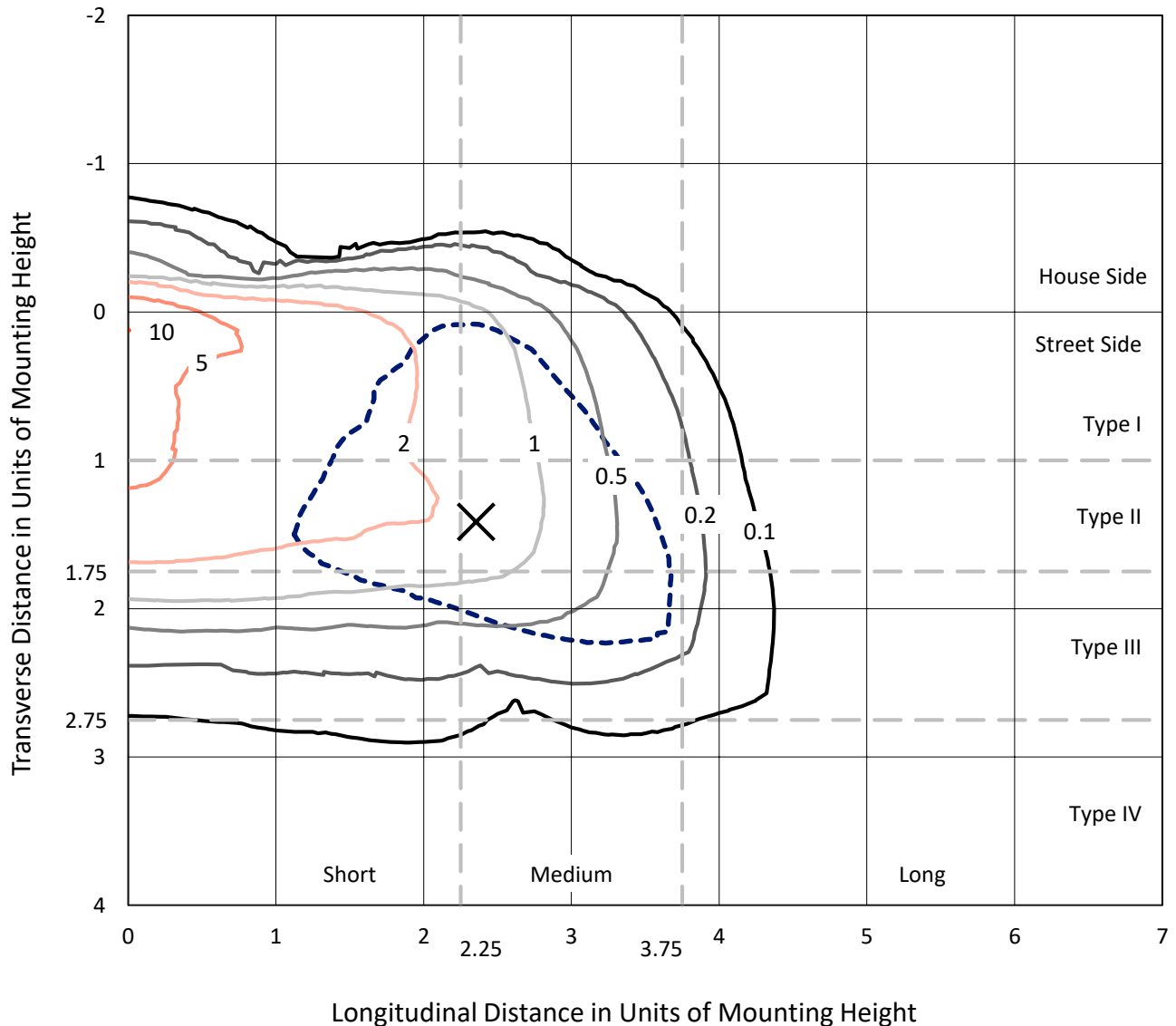


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

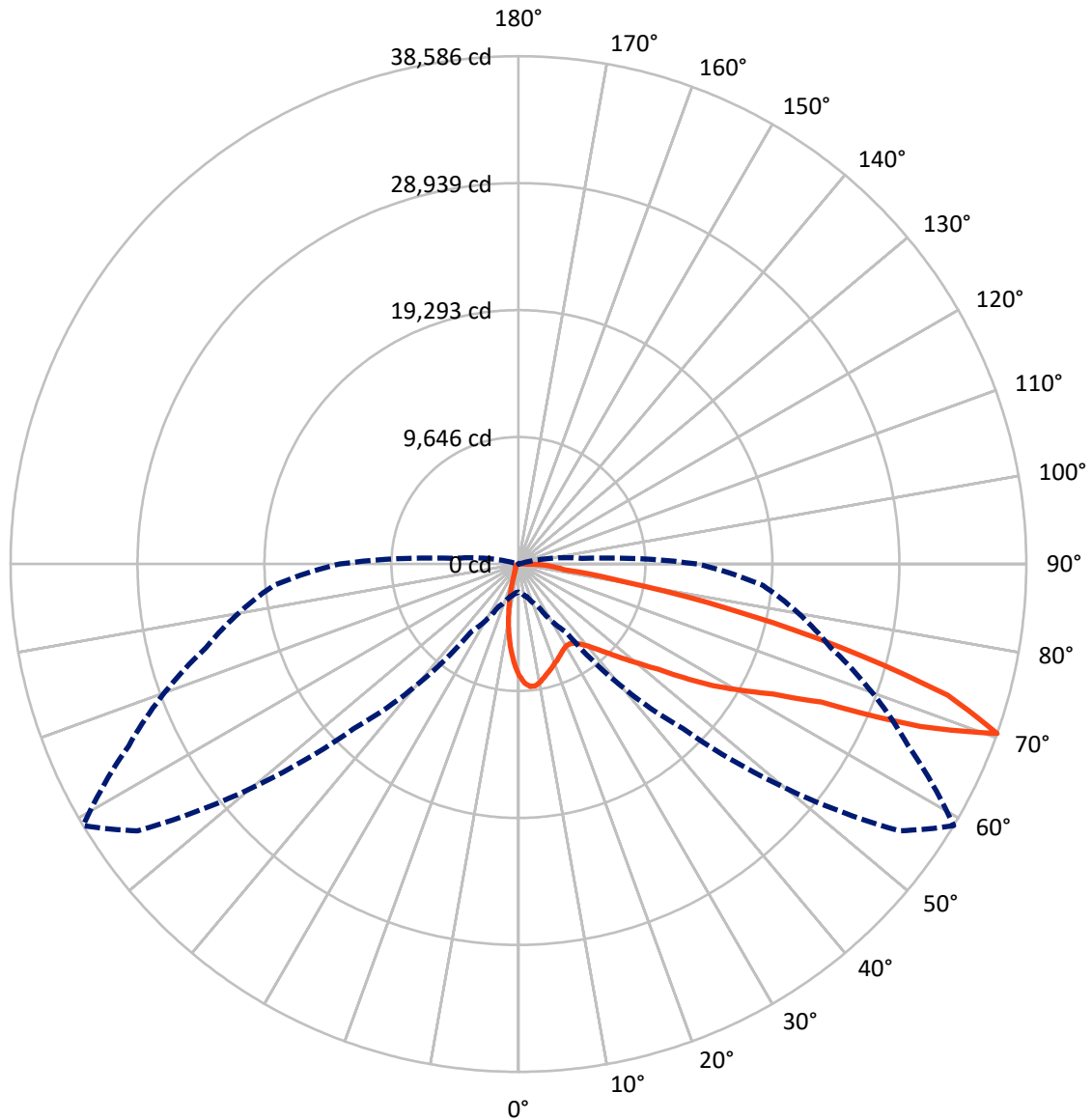


Based on 30 foot mounting height. Maximum calculated value = 10 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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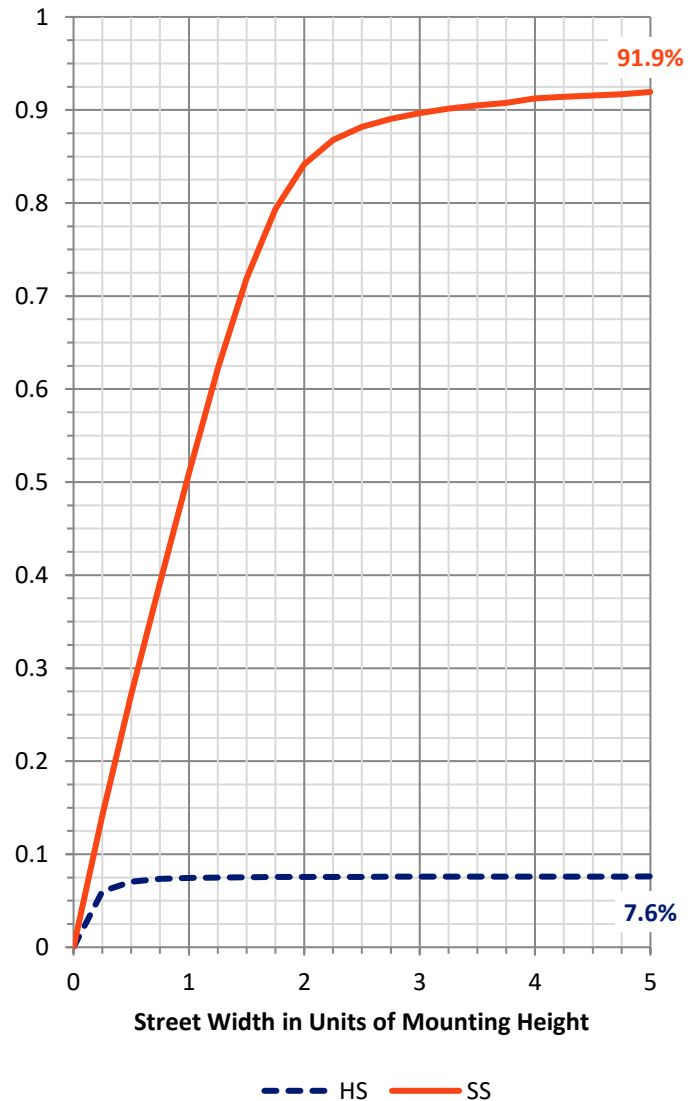
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2578.7	0.0	2578.7
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	30966.3	0.0	30966.3
	% Fixture	92.3	0.0	92.3
Total	Lumens	33545.0	0.0	33545.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	697.5	2.1
10°-20°	1463.0	4.4
20°-30°	1980.4	5.9
30°-40°	2858.0	8.5
40°-50°	4746.5	14.1
50°-60°	7260.2	21.6
60°-70°	9030.1	26.9
70°-80°	4991.8	14.9
80°-90°	517.6	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°	33545.0	100.0
0°-180°	33545.0	100.0



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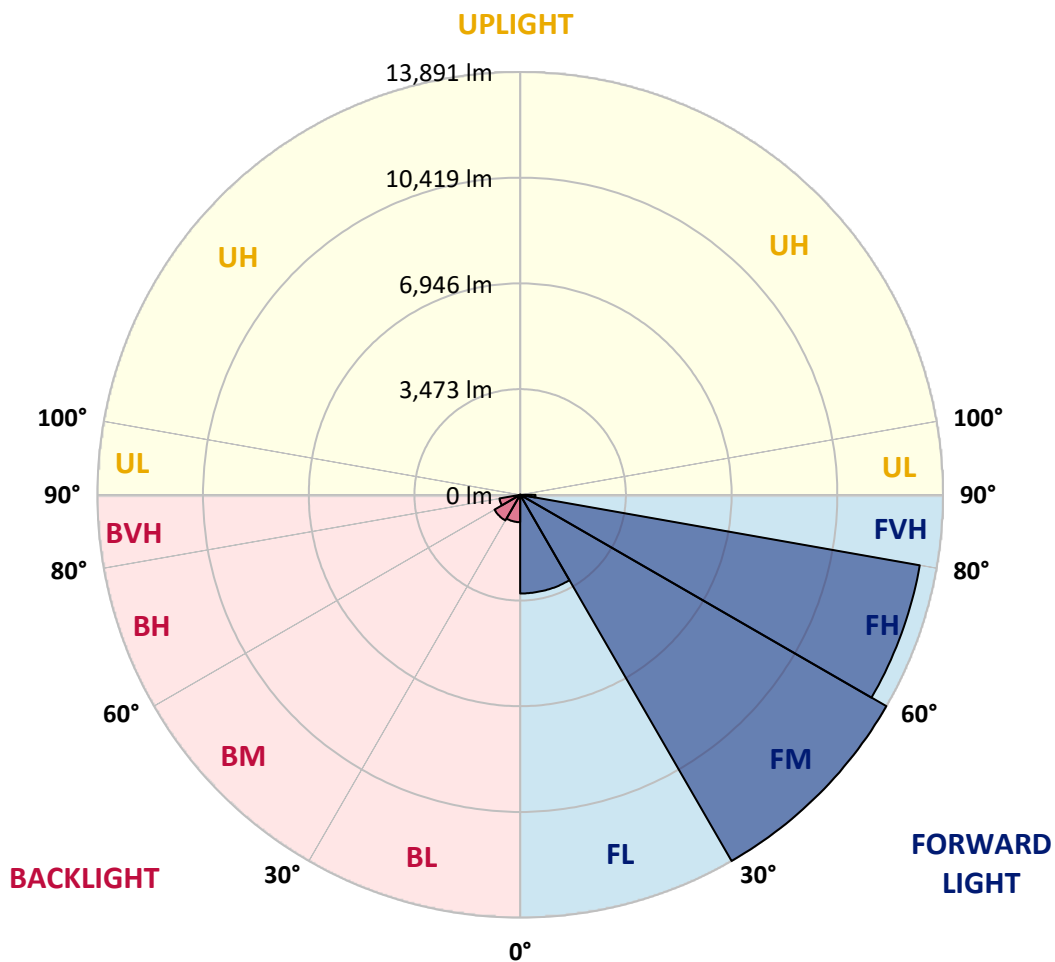
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3242.2	9.7			
FM	(30°-60°)	13891.3	41.4			
FH	(60°-80°)	13330.1	39.7			G5
FVH	(80°-90°)	502.6	1.5			G4/750
BL	(0°-30°)	898.6	2.7	B2/1000		
BM	(30°-60°)	973.4	2.9	B1/1000		
BH	(60°-80°)	691.8	2.1	B2/1000		G2/1000
BVH	(80°-90°)	15.0	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3
2.5°	9588.2	9573.0	9509.7	9497.1	9426.2	9284.5	9120.0	9054.2	8920.1	8707.5	8472.2
5°	9747.6	9755.2	9760.2	9732.4	9722.3	9605.9	9423.7	9345.2	9165.6	8816.4	8386.2
7.5°	9150.4	9170.6	9233.9	9261.7	9383.2	9428.7	9390.8	9340.2	9198.5	8786.0	8181.2
10°	8520.3	8558.2	8626.6	8672.1	8821.4	8942.9	9097.2	9109.9	9079.5	8684.8	7950.9
12.5°	7978.7	8014.2	8090.1	8181.2	8333.0	8489.9	8720.2	8801.2	8902.4	8619.0	7786.4
15°	7513.1	7523.3	7596.6	7710.5	7910.4	8125.5	8398.8	8517.8	8715.1	8593.7	7659.9
17.5°	7105.7	7108.2	7156.3	7260.1	7503.0	7786.4	8105.3	8262.2	8512.7	8558.2	7548.6
20°	6837.5	6835.0	6837.5	6893.2	7108.2	7444.8	7832.0	7996.5	8317.8	8515.2	7434.7
22.5°	6746.4	6733.7	6675.5	6655.3	6791.9	7088.0	7551.1	7766.2	8143.2	8502.6	7351.2
25°	6857.7	6850.1	6726.1	6609.7	6622.4	6807.1	7265.1	7528.3	8006.6	8548.1	7330.9
27.5°	7217.1	7201.9	7012.1	6784.3	6640.1	6673.0	7052.6	7328.4	7897.8	8659.5	7358.8
30°	7687.7	7690.3	7487.8	7212.0	6872.9	6685.6	6938.7	7199.3	7824.4	8826.5	7419.5
32.5°	8211.6	8209.0	8064.8	7745.9	7313.2	6918.5	6989.3	7209.5	7834.5	9071.9	7535.9
35°	8753.1	8725.3	8677.2	8396.3	7890.2	7325.9	7219.6	7381.5	7940.8	9395.8	7733.3
37.5°	9378.1	9368.0	9416.1	9120.0	8603.8	7925.6	7624.5	7733.3	8209.0	9874.1	8052.1
40°	10372.6	10317.0	10339.7	9937.4	9408.5	8732.8	8191.3	8219.1	8636.7	10506.7	8555.7
42.5°	12268.0	12042.8	11620.2	10866.1	10294.2	9628.7	8932.8	8884.7	9241.5	11273.5	9218.7
45°	14532.8	14274.7	13209.3	11890.9	11179.9	10590.3	9848.8	9719.8	9985.5	12187.0	10074.0
47.5°	16423.1	16144.8	14732.7	12961.4	12080.7	11582.2	10863.5	10711.7	10876.2	13247.3	11101.4
50°	17068.4	16914.0	15674.1	13852.1	12989.2	12695.6	12136.4	11883.4	11923.8	14391.1	12300.9
52.5°	16772.3	16719.2	15889.2	14462.0	13829.3	13925.5	13530.7	13265.0	13219.5	15641.2	13626.9
55°	16147.3	16122.0	15717.1	14801.0	14570.8	15051.6	15486.8	15256.5	14826.4	16969.7	14722.6
57.5°	15254.0	15350.2	15641.2	15453.9	15481.8	16240.9	17303.7	17422.7	16779.9	18027.5	15534.9
60°	12867.7	13125.8	14459.4	16154.9	17453.0	18219.8	19249.7	19472.4	18434.9	18751.2	16473.7
62.5°	9512.2	9881.7	11782.1	14897.2	18538.6	21982.7	21838.4	21739.7	20013.9	19720.4	18181.8
65°	5587.4	6020.1	7627.0	11640.4	16901.4	24401.9	26671.7	25305.3	22420.5	21734.7	20902.1
67.5°	2783.6	2786.1	3512.4	6144.1	12490.7	22714.0	33726.9	32937.3	27537.2	24703.0	21975.1
70°	2140.8	2199.0	2598.9	3570.6	6316.2	17690.9	35343.9	38585.5	32679.2	24571.4	18644.9
72.5°	1814.4	1852.3	2312.9	3107.5	4722.0	9712.2	30596.6	34106.4	31183.7	20760.4	13743.3
75°	1305.8	1336.1	2047.2	2819.0	4347.4	4818.1	20988.2	25295.1	23397.2	14603.7	7563.7
77.5°	323.9	321.4	713.6	2287.6	3889.4	4013.4	12042.8	16220.7	13424.4	5979.6	1943.4
80°	144.2	139.2	162.0	480.8	3618.7	3788.2	5296.4	8191.3	5149.6	969.2	594.7
82.5°	101.2	96.2	101.2	177.1	1209.6	3514.9	3201.1	3550.3	1885.2	331.5	253.1
85°	32.9	30.4	55.7	149.3	339.1	2027.0	3122.7	2652.0	1401.9	141.7	169.5
87.5°	5.1	5.1	20.2	81.0	98.7	675.7	1832.1	1837.2	630.1	83.5	75.9
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°	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3	8482.3
2.5°	8353.3	8204.0	7993.9	7783.9	7594.1	7399.3	7242.4	7169.0	7136.1	7090.5	6991.8
5°	8160.9	7890.2	7429.6	6976.7	6554.1	6149.2	5802.5	5605.1	5392.6	5382.4	5278.7
7.5°	7852.2	7467.6	6741.3	6037.8	5392.6	4775.1	4243.7	3899.5	3664.2	3517.4	3416.2
10°	7508.1	7014.6	6053.0	5063.6	4185.5	3360.5	2677.3	2231.9	1961.2	1824.5	1746.1
12.5°	7234.8	6614.8	5374.8	4129.8	3029.0	2082.6	1447.5	1123.6	979.3	923.6	898.3
15°	6999.4	6247.9	4739.7	3294.7	2021.9	1196.9	837.6	731.3	708.5	708.5	706.0
17.5°	6761.6	5893.6	4122.2	2474.9	1272.9	784.5	660.5	645.3	647.8	655.4	655.4
20°	6536.3	5557.0	3527.6	1763.8	835.1	627.6	599.7	594.7	602.3	612.4	609.9
22.5°	6354.2	5261.0	2970.8	1212.1	642.8	569.4	551.7	544.1	549.1	556.7	554.2
25°	6225.1	5007.9	2459.7	845.2	559.2	518.8	498.5	488.4	483.3	488.4	485.9
27.5°	6146.6	4795.3	1978.9	635.2	501.0	468.1	442.8	422.6	409.9	409.9	404.9
30°	6096.0	4595.4	1551.2	526.3	453.0	417.5	382.1	354.3	334.0	329.0	326.4
32.5°	6093.5	4423.4	1159.0	465.6	407.4	366.9	323.9	288.5	265.7	260.6	258.1
35°	6156.8	4284.2	852.8	420.1	366.9	318.8	270.8	232.8	212.6	212.6	210.0
37.5°	6321.3	4203.2	645.3	384.6	334.0	278.4	227.7	192.3	174.6	179.7	179.7
40°	6627.4	4188.0	526.3	356.8	306.2	242.9	184.7	156.9	149.3	156.9	156.9
42.5°	7095.6	4269.0	468.1	336.6	280.9	207.5	154.4	134.1	131.6	139.2	139.2
45°	7705.5	4428.4	435.3	318.8	253.1	172.1	129.1	116.4	113.9	124.0	124.0
47.5°	8444.4	4643.5	404.9	298.6	225.2	141.7	108.8	98.7	98.7	108.8	111.3
50°	9319.9	4934.5	374.5	278.4	202.4	118.9	91.1	83.5	86.0	96.2	98.7
52.5°	10327.1	5291.3	346.7	260.6	177.1	96.2	75.9	70.9	73.4	83.5	86.0
55°	11195.0	5602.6	313.8	242.9	144.2	78.4	63.3	60.7	63.3	75.9	75.9
57.5°	11951.7	5901.2	283.4	215.1	113.9	63.3	50.6	50.6	55.7	68.3	70.9
60°	12956.3	6371.9	258.1	182.2	86.0	48.1	40.5	43.0	50.6	60.7	63.3
62.5°	14735.3	7171.5	225.2	151.8	63.3	38.0	32.9	35.4	45.5	58.2	60.7
65°	16962.1	7928.1	187.3	126.5	48.1	27.8	25.3	32.9	45.5	58.2	60.7
67.5°	16734.4	6895.7	146.8	101.2	35.4	22.8	20.2	30.4	43.0	58.2	60.7
70°	13571.2	4833.3	108.8	68.3	27.8	20.2	20.2	30.4	43.0	55.7	58.2
72.5°	9413.6	2689.9	83.5	45.5	25.3	20.2	17.7	27.8	40.5	55.7	58.2
75°	4479.0	825.0	65.8	32.9	22.8	17.7	15.2	27.8	40.5	55.7	58.2
77.5°	860.4	210.0	53.1	27.8	20.2	17.7	15.2	25.3	40.5	53.1	55.7
80°	291.0	93.6	43.0	25.3	20.2	17.7	15.2	25.3	38.0	50.6	53.1
82.5°	159.4	53.1	38.0	22.8	20.2	15.2	12.7	22.8	35.4	50.6	53.1
85°	124.0	38.0	30.4	22.8	20.2	15.2	12.7	22.8	35.4	48.1	50.6
87.5°	63.3	27.8	25.3	22.8	20.2	15.2	12.7	20.2	32.9	45.5	50.6
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)