

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: P884768

Luminaire Tested: **NAV-SB5D-727-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884768
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-727-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36701 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

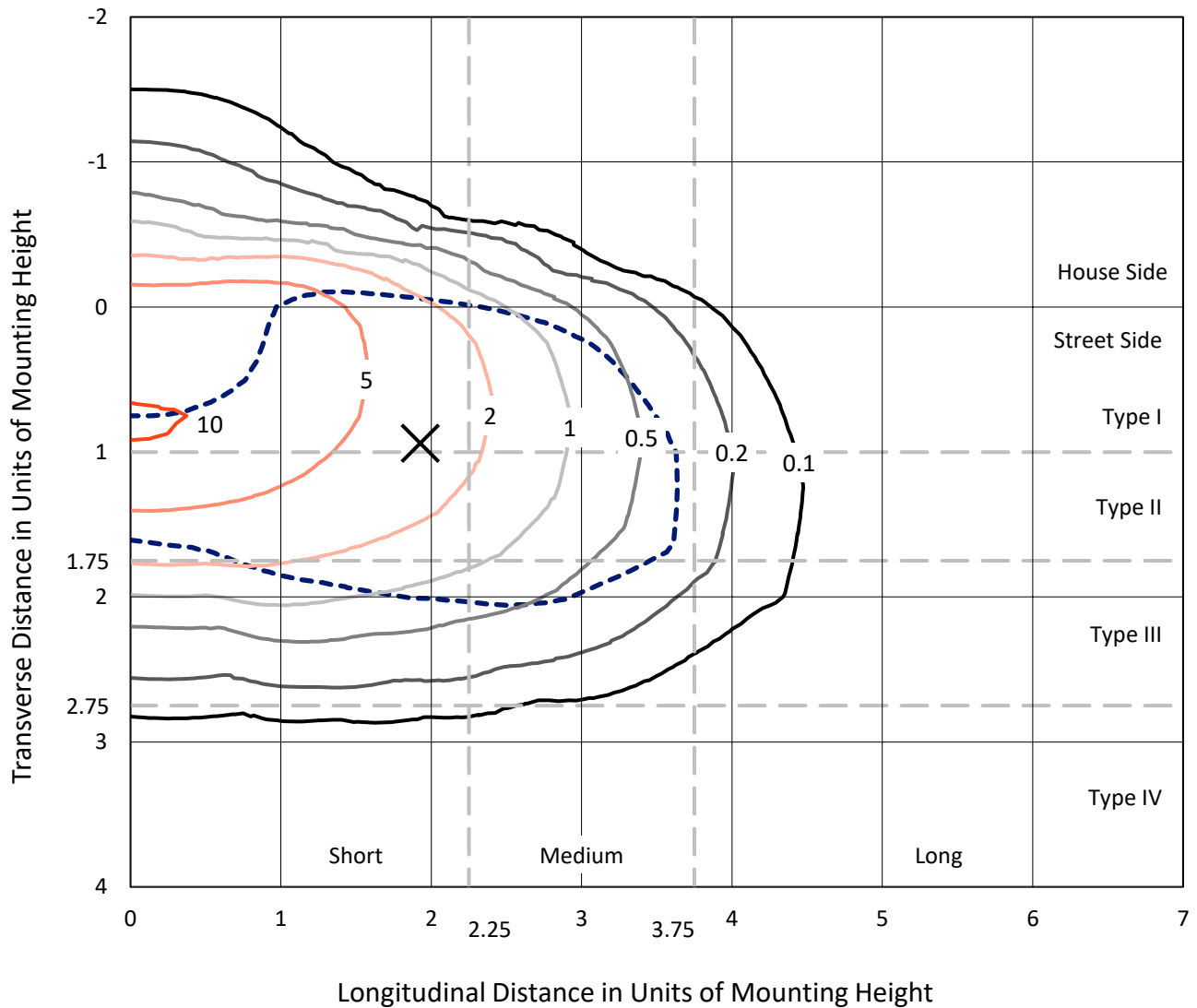
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

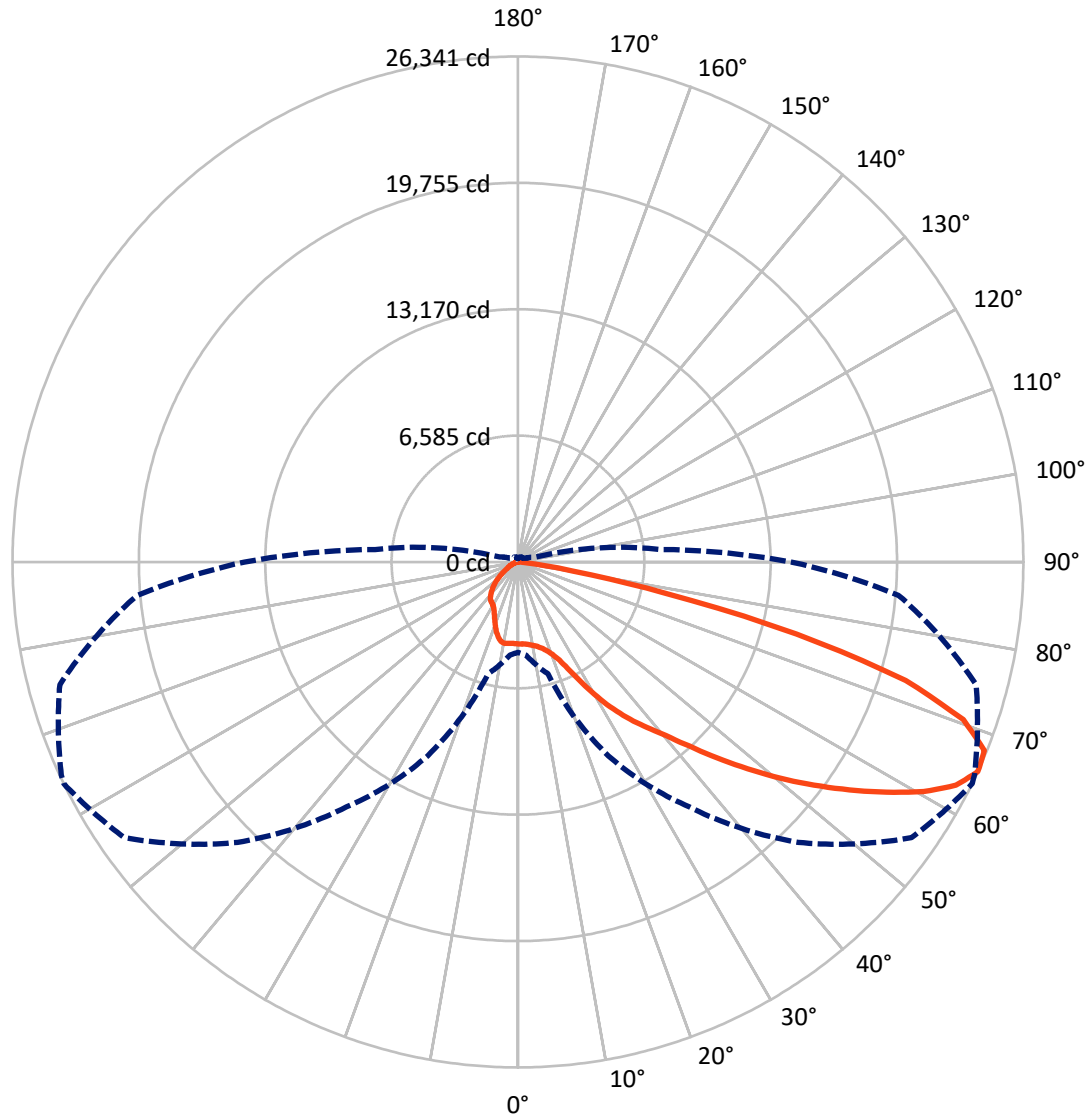
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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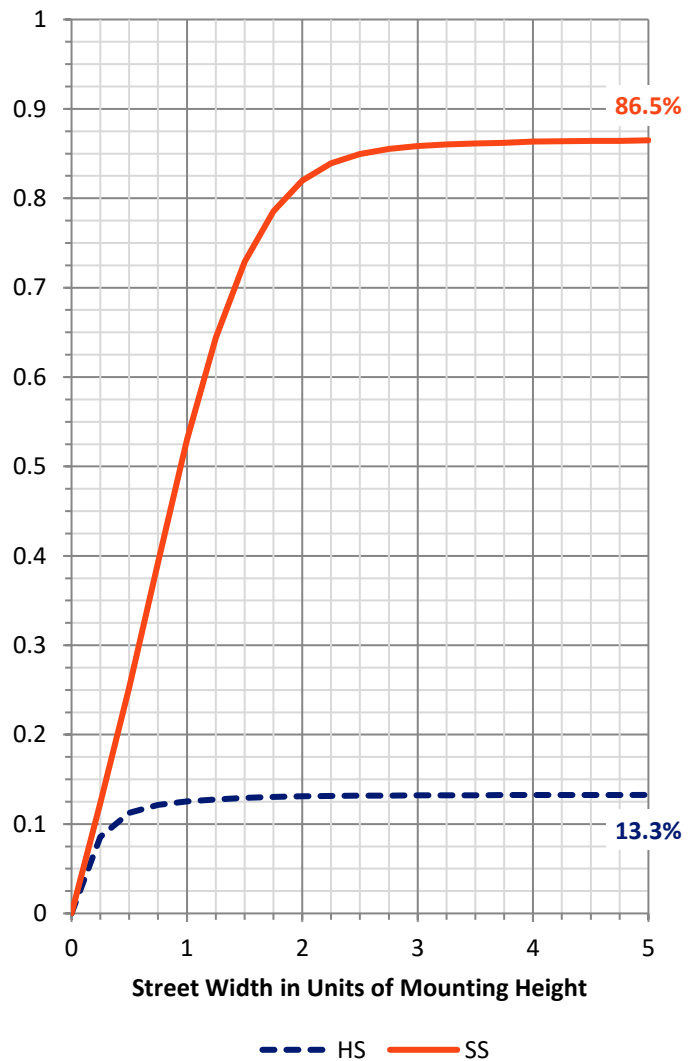
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4908.0	0.0	4908.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	31793.0	0.0	31793.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	36701.0	0.0	36701.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.8	1.1
10°-20°	1068.2	2.9
20°-30°	2024.1	5.5
30°-40°	4095.9	11.2
40°-50°	6977.3	19.0
50°-60°	9488.6	25.9
60°-70°	8910.3	24.3
70°-80°	3569.8	9.7
80°-90°	172.9	0.5
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°	36701.0	100.0
0°-180°	36701.0	100.0

Coefficient of Utilization



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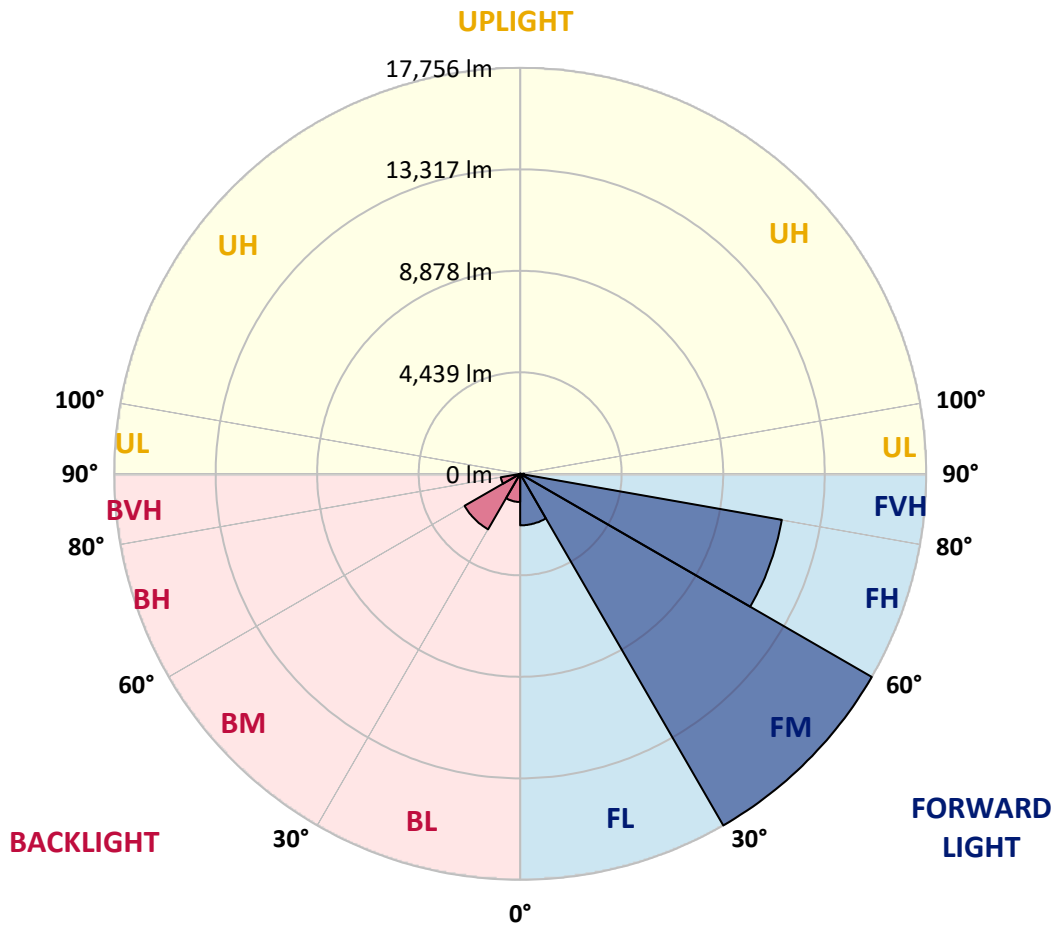
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2253.9	6.1			
FM (30°-60°)	17755.9	48.4			
FH (60°-80°)	11618.7	31.7			G4/12000
FVH (80°-90°)	164.5	0.4			G2/225
BL (0°-30°)	1232.3	3.4	B3/2500		
BM (30°-60°)	2805.9	7.6	B3/5000		
BH (60°-80°)	861.4	2.3	B2/1000		G2/1000
BVH (80°-90°)	8.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7
2.5°	4253.9	4283.5	4276.1	4268.7	4266.2	4271.2	4273.6	4271.2	4271.2	4271.2	4273.6
5°	4172.8	4197.4	4197.4	4214.6	4239.2	4268.7	4290.9	4295.8	4300.7	4308.1	4305.6
7.5°	4017.8	4037.4	4052.2	4108.8	4170.3	4249.0	4315.5	4349.9	4354.8	4381.9	4391.7
10°	3912.0	3936.6	3961.2	4020.2	4108.8	4226.9	4340.1	4423.7	4436.0	4500.0	4529.5
12.5°	3907.0	3931.6	3963.6	4027.6	4130.9	4256.4	4394.2	4514.7	4536.9	4630.4	4691.9
15°	3958.7	3988.2	4017.8	4096.5	4207.2	4359.7	4507.4	4657.4	4679.6	4812.4	4878.9
17.5°	4064.5	4103.9	4126.0	4204.7	4322.8	4492.6	4687.0	4859.2	4878.9	5033.9	5117.5
20°	4273.6	4320.4	4327.8	4391.7	4507.4	4689.4	4920.7	5134.8	5159.4	5336.5	5430.0
22.5°	4706.6	4773.1	4714.0	4746.0	4849.4	5031.4	5282.4	5553.0	5587.5	5789.2	5872.9
25°	5469.4	5562.9	5410.3	5356.2	5400.5	5589.9	5904.8	6246.8	6286.2	6448.6	6490.4
27.5°	6967.7	6847.2	6615.9	6389.5	6256.7	6364.9	6719.2	7142.4	7191.6	7349.1	7299.9
30°	8613.7	8507.9	8195.4	7693.5	7378.6	7361.4	7688.6	8161.0	8217.6	8367.7	8217.6
32.5°	10262.1	10161.2	9821.7	9204.2	8658.0	8387.3	8613.7	9137.7	9167.3	9263.2	9041.8
35°	11883.5	11780.2	11440.6	10808.3	10136.6	9521.6	9477.3	10067.8	10077.6	10178.5	9848.8
37.5°	13514.7	13428.6	13066.9	12446.9	11785.1	10936.3	10525.4	10948.6	10960.9	11059.3	10717.3
40°	14678.4	14715.4	14466.9	13987.1	13418.7	12491.2	11701.4	11886.0	11812.1	11977.0	11772.8
42.5°	15677.4	15751.2	15534.7	15293.5	14963.8	14147.0	13158.0	13126.0	13007.9	13096.4	12884.9
45°	16540.9	16602.4	16408.1	16351.5	16344.1	15770.8	14749.8	14557.9	14393.0	14375.8	14122.4
47.5°	16858.3	16976.4	17060.1	17249.5	17618.6	17377.5	16395.8	16098.1	15913.5	15778.2	15377.2
50°	16978.9	17104.4	17389.8	17940.9	18814.3	18917.6	18034.4	17699.8	17473.4	17227.4	16636.9
52.5°	16816.5	17040.4	17424.2	18351.8	19618.8	20152.7	19606.5	19313.7	19055.4	18654.4	17778.5
55°	15859.4	16083.3	16868.2	18346.8	20019.9	21018.8	21092.6	20962.2	20671.9	20039.6	18701.1
57.5°	13841.9	14174.1	15416.6	17721.9	20012.5	21764.3	22549.1	22642.6	22317.8	21412.4	19426.9
60°	11047.0	11497.2	13012.8	16336.7	19394.9	22167.8	23826.0	24293.5	23949.0	22765.6	20014.9
62.5°	7708.3	8229.9	9664.3	14166.7	17982.7	21877.4	24758.5	25622.1	25361.3	23976.1	20241.3
65°	4701.7	4869.0	6025.4	11147.8	15581.4	20662.0	25046.4	26340.5	26254.4	24716.7	19906.7
67.5°	3132.0	3272.3	3604.4	7644.3	12095.1	18233.7	24357.5	26215.0	26239.6	24596.1	18681.4
70°	1887.1	2007.6	2224.2	4445.9	7838.7	14432.4	22224.3	24615.8	24758.5	22984.6	16358.9
72.5°	777.5	858.7	1055.5	2015.0	4059.6	9159.9	17697.3	21134.4	21466.6	19326.0	12555.2
75°	440.4	482.2	620.0	1011.2	1761.6	4268.7	10719.7	15003.2	15492.8	13320.3	7553.3
77.5°	292.8	312.5	401.0	654.5	991.5	1456.5	4581.2	7816.5	8751.5	7275.3	3269.8
80°	196.8	214.1	275.6	437.9	644.6	624.9	1459.0	2895.8	3562.6	2499.7	797.2
82.5°	132.9	135.3	196.8	287.9	408.4	302.6	430.6	900.5	1131.8	723.3	302.6
85°	76.3	73.8	145.2	167.3	182.1	125.5	130.4	270.6	354.3	305.1	172.2
87.5°	9.8	14.8	56.6	44.3	24.6	27.1	27.1	46.7	68.9	73.8	36.9
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°	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7	4268.7
2.5°	4273.6	4271.2	4263.8	4256.4	4239.2	4229.3	4234.3	4229.3	4226.9	4229.3	4239.2
5°	4305.6	4298.2	4278.5	4253.9	4219.5	4177.7	4150.6	4111.2	4074.3	4052.2	4057.1
7.5°	4391.7	4384.3	4357.3	4288.4	4177.7	4003.0	3843.1	3702.8	3597.0	3535.5	3538.0
10°	4529.5	4517.2	4475.4	4322.8	4032.5	3651.2	3333.8	3070.5	2898.3	2817.1	2809.7
12.5°	4691.9	4677.1	4603.3	4290.9	3757.0	3161.5	2723.6	2430.8	2270.9	2199.6	2192.2
15°	4883.8	4864.1	4719.0	4138.3	3355.9	2620.3	2219.2	2000.3	1896.9	1833.0	1835.4
17.5°	5122.4	5088.0	4805.1	3909.5	2920.4	2206.9	1909.2	1744.4	1653.4	1591.8	1586.9
20°	5432.5	5375.9	4874.0	3636.4	2519.4	1946.1	1700.1	1562.3	1493.4	1439.3	1429.5
22.5°	5865.5	5784.3	4957.6	3341.2	2236.5	1766.5	1545.1	1444.2	1387.6	1326.1	1316.3
25°	6401.8	6305.9	5060.9	3068.1	2042.1	1611.5	1431.9	1348.3	1281.8	1210.5	1203.1
27.5°	7152.2	6980.0	5184.0	2844.2	1874.8	1478.7	1328.6	1235.1	1158.8	1099.8	1087.5
30°	7988.8	7705.8	5292.2	2708.8	1722.2	1355.7	1193.3	1099.8	1028.4	986.6	979.2
32.5°	8781.0	8397.2	5363.6	2649.8	1584.5	1215.4	1045.6	944.8	890.6	878.3	885.7
35°	9528.9	9022.1	5356.2	2593.2	1461.4	1075.2	900.5	797.2	755.3	762.7	762.7
37.5°	10390.1	9688.9	5304.5	2504.6	1360.6	947.2	775.0	684.0	647.1	649.5	659.4
40°	11391.4	10458.9	5272.5	2337.3	1249.9	829.1	671.7	597.9	570.8	561.0	558.5
42.5°	12459.2	11204.4	5277.5	2147.9	1112.1	723.3	600.3	538.8	514.2	506.8	504.4
45°	13531.9	11915.5	5284.8	1951.1	966.9	642.2	548.7	497.0	482.2	472.4	472.4
47.5°	14540.7	12520.7	5147.1	1739.5	824.2	580.6	506.8	472.4	460.1	447.8	447.8
50°	15480.5	12924.2	4814.9	1493.4	711.0	531.4	474.8	450.2	437.9	425.6	425.6
52.5°	16211.2	12988.2	4266.2	1240.0	632.3	494.5	455.2	433.0	418.3	406.0	403.5
55°	16536.0	12587.2	3486.3	1003.8	570.8	462.5	435.5	413.3	396.1	383.8	381.4
57.5°	16452.4	11743.3	2718.7	807.0	511.8	430.6	410.9	396.1	376.4	356.8	354.3
60°	16041.5	10614.0	2049.5	671.7	457.6	396.1	383.8	371.5	344.4	314.9	310.0
62.5°	15330.4	9194.3	1461.4	556.0	398.6	356.8	351.8	342.0	302.6	248.5	243.6
65°	14243.0	7469.6	984.1	462.5	342.0	312.5	314.9	297.7	246.0	184.5	179.6
67.5°	12653.6	5462.0	629.8	378.9	285.4	260.8	263.3	253.4	209.1	157.5	150.1
70°	10628.7	3616.7	410.9	287.9	228.8	201.7	216.5	219.0	177.1	127.9	123.0
72.5°	7791.9	2135.6	287.9	214.1	167.3	140.2	177.1	182.1	142.7	96.0	91.0
75°	4440.9	1013.7	216.5	155.0	103.3	98.4	137.8	137.8	98.4	64.0	59.0
77.5°	1864.9	423.2	152.5	100.9	59.0	56.6	93.5	86.1	49.2	29.5	29.5
80°	538.8	189.4	81.2	49.2	24.6	22.1	36.9	27.1	12.3	4.9	4.9
82.5°	211.6	83.7	32.0	19.7	9.8	9.8	4.9	0.0	0.0	0.0	0.0
85°	125.5	34.4	14.8	7.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	32.0	7.4	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)