

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: P884801

Luminaire Tested: **NAV-SB5D-740-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884801  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-740-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

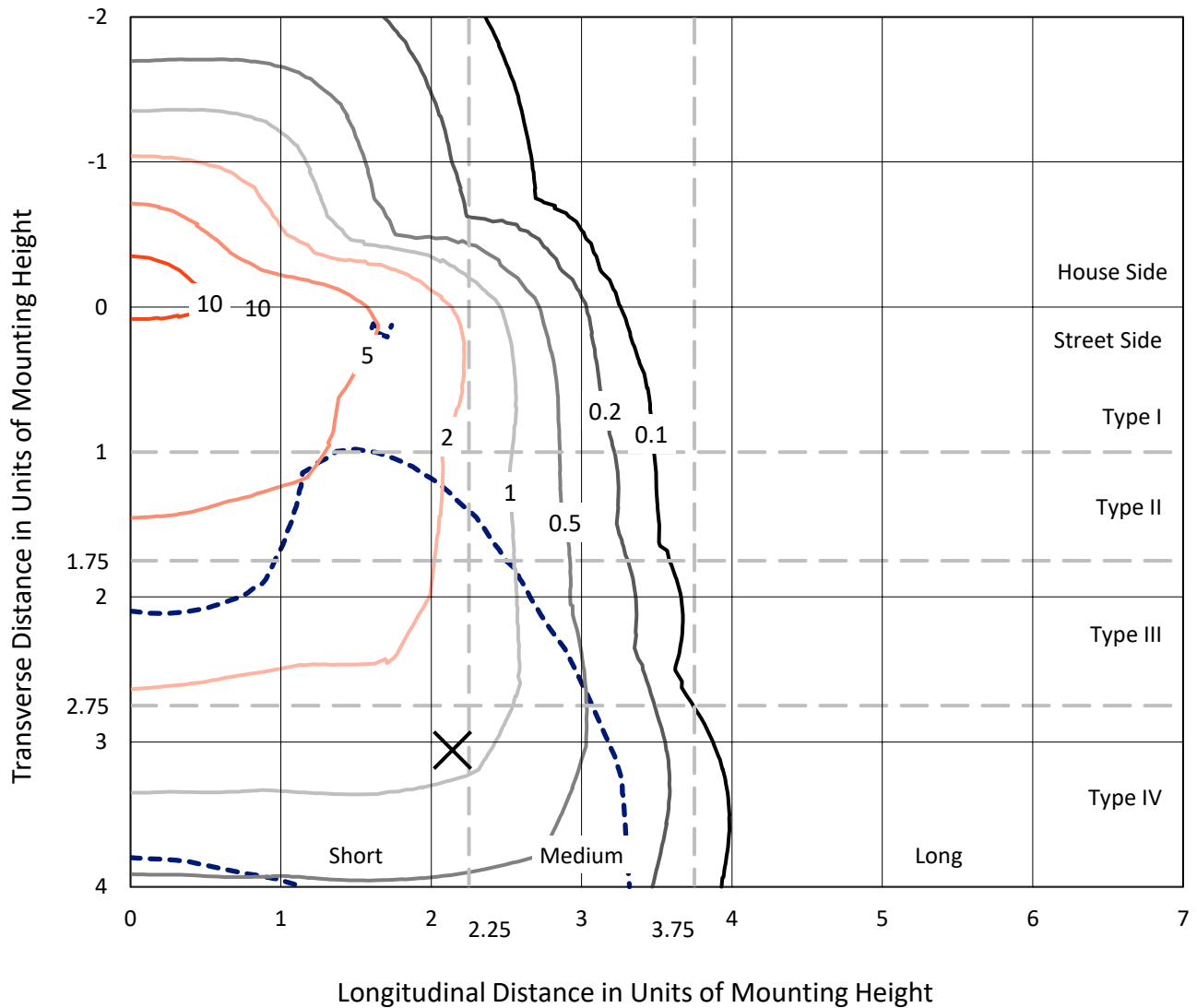
Lumens per Lamp: N/A  
Luminaire Lumens: 55024 lumens  
Efficiency: N/A  
Efficacy: 150.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

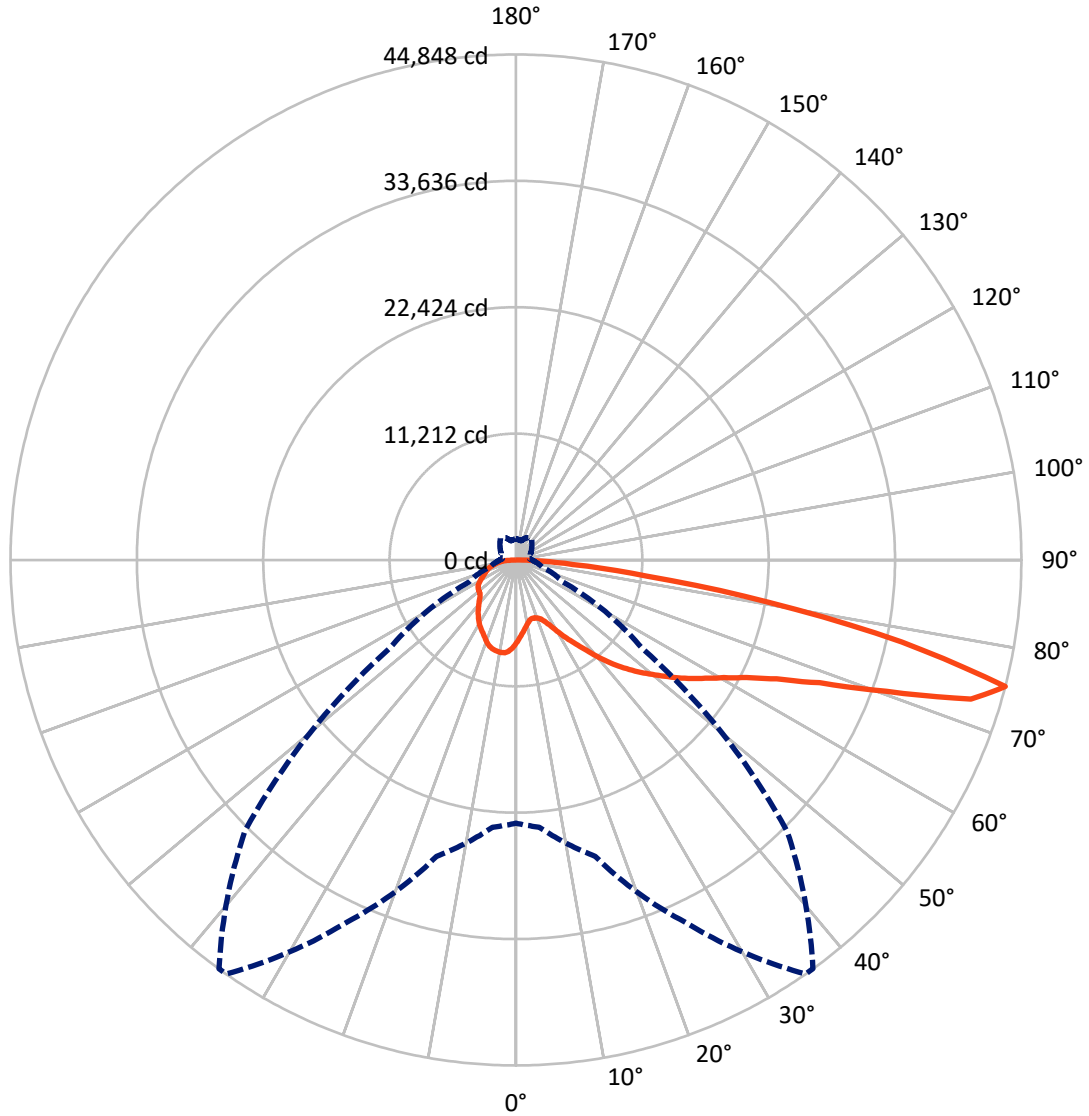
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13094.3	0.0	13094.3
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	41929.7	0.0	41929.7
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	55024.0	0.0	55024.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	694.2	1.3
10°-20°	2002.4	3.6
20°-30°	3362.6	6.1
30°-40°	5226.0	9.5
40°-50°	7756.8	14.1
50°-60°	10708.7	19.5
60°-70°	12992.1	23.6
70°-80°	10736.9	19.5
80°-90°	1544.3	2.8
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°	55024.0	100.0
0°-180°	55024.0	100.0

**Coefficient of Utilization**



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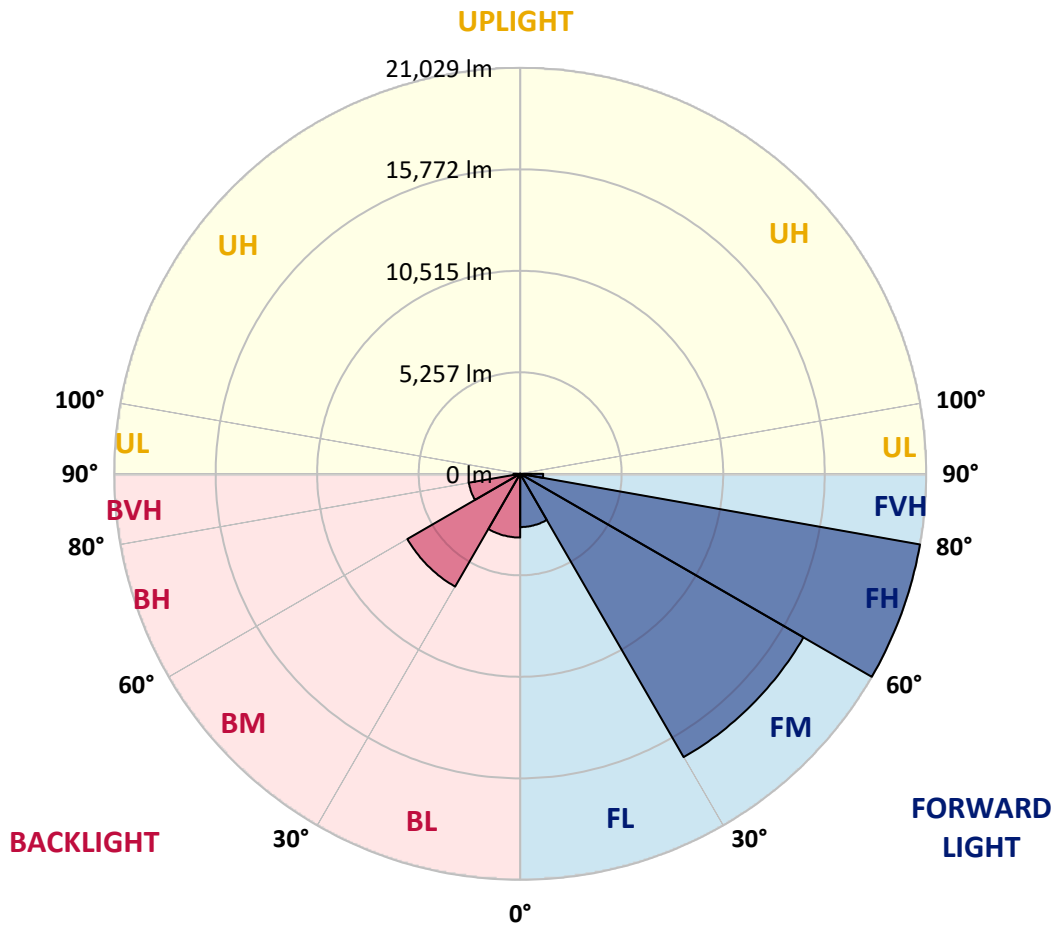
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2759.3	5.0			
FM (30°-60°)	16944.4	30.8			
FH (60°-80°)	21029.4	38.2			G5
FVH (80°-90°)	1196.6	2.2			G5
BL (0°-30°)	3299.9	6.0	B4/5000		
BM (30°-60°)	6747.0	12.3	B4/8500		
BH (60°-80°)	2699.6	4.9	B4/5000		G4/5000
BVH (80°-90°)	347.7	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3
2.5°	6761.2	6802.8	6820.7	6811.8	6856.4	6850.4	6912.9	6990.2	7097.3	7201.4	7353.1
5°	6240.7	6285.3	6323.9	6359.6	6445.9	6472.7	6570.8	6719.6	6915.9	7115.2	7365.0
7.5°	5755.8	5794.5	5854.0	5919.4	6065.2	6091.9	6255.5	6487.5	6761.2	7052.7	7397.8
10°	5360.2	5398.8	5461.3	5535.7	5717.1	5749.8	5958.1	6267.4	6624.4	6993.2	7433.5
12.5°	5190.6	5202.5	5238.2	5312.6	5470.2	5491.1	5720.1	6074.1	6490.5	6948.6	7487.0
15°	5181.7	5205.5	5208.5	5247.1	5378.0	5387.0	5598.1	5949.1	6407.2	6939.7	7567.3
17.5°	5270.9	5288.8	5262.0	5285.8	5395.9	5410.7	5577.3	5889.7	6380.5	6978.3	7704.1
20°	5508.9	5523.8	5443.5	5410.7	5491.1	5503.0	5666.6	5928.3	6407.2	7058.7	7891.5
22.5°	6014.6	6023.5	5827.2	5693.3	5699.3	5705.2	5848.0	6086.0	6511.3	7204.4	8129.5
25°	6802.8	6796.9	6484.6	6225.8	6077.1	6044.3	6139.5	6341.8	6686.8	7397.8	8435.9
27.5°	7725.0	7680.3	7368.0	6981.3	6657.1	6609.5	6588.7	6674.9	6936.7	7653.6	8810.7
30°	8766.1	8724.4	8388.3	7882.6	7433.5	7356.1	7159.8	7115.2	7308.5	8001.6	9331.2
32.5°	9908.3	9881.5	9480.0	8867.2	8266.3	8177.1	7846.9	7727.9	7879.6	8528.1	10057.0
35°	10866.1	10842.3	10509.2	9878.6	9143.8	9033.8	8697.6	8563.8	8641.1	9203.3	11005.9
37.5°	11731.7	11719.8	11434.3	10937.5	10179.0	10045.1	9667.4	9622.7	9607.9	10092.7	12157.1
40°	12534.8	12505.1	12207.6	11945.9	11383.7	11261.7	10928.6	10889.9	10776.9	11187.4	13459.9
42.5°	13424.2	13346.9	12915.6	12793.6	12641.9	12540.8	12341.5	12347.4	12097.6	12421.8	14840.1
45°	14150.0	14105.4	13662.2	13590.8	13754.4	13712.8	13885.3	13929.9	13445.1	13715.8	16273.9
47.5°	14929.4	14887.7	14512.9	14462.4	14905.6	14917.5	15527.3	15542.1	14759.8	15060.3	17710.6
50°	15890.2	15830.7	15458.9	15521.3	16018.1	16062.7	17178.2	17077.0	15970.5	16425.6	19135.4
52.5°	16523.7	16559.4	16479.1	16580.3	17258.5	17300.1	18802.3	18543.5	17169.2	17773.1	20533.5
55°	16990.8	17062.1	17312.0	17544.0	18567.3	18608.9	20334.2	19938.6	18162.7	19022.4	21848.2
57.5°	17591.6	17490.5	17957.5	18409.6	19810.7	19920.7	21824.4	21283.1	19043.2	20099.2	22749.5
60°	18454.2	18382.9	18745.8	19415.0	21202.7	21378.2	23401.0	22493.7	19688.7	20952.9	22925.0
62.5°	20203.3	20024.8	20081.3	20673.3	22957.7	23189.8	25179.8	23549.7	20009.9	21286.0	21985.1
65°	22817.9	22511.6	22226.0	22636.5	25429.6	25658.7	27187.6	24379.6	19891.0	20640.6	19489.4
67.5°	26110.8	25807.4	25456.4	25843.1	29070.5	29251.9	29665.4	24846.6	18954.0	18153.8	15078.1
70°	28826.6	28713.5	29133.0	30724.4	34885.8	34891.7	32842.3	24459.9	16386.9	12871.0	8724.4
72.5°	28466.7	28398.2	30608.3	35528.3	42215.1	42057.5	35849.5	21532.9	11038.6	5806.4	3269.1
75°	23353.4	23796.6	27220.3	35442.0	44847.6	44826.8	34008.3	13689.0	4566.0	2406.4	1689.6
77.5°	12522.9	13224.9	17671.9	26167.3	35010.7	35537.2	23909.6	4789.1	1960.2	1540.8	1169.0
80°	4084.1	4696.8	7043.8	13323.1	22749.5	22651.4	10247.4	1879.9	1341.5	1091.7	809.1
82.5°	1734.2	1805.6	3147.1	6291.2	11675.2	11493.7	3263.1	1079.8	942.9	746.6	499.7
85°	678.2	758.5	1389.1	2909.1	5056.8	4946.7	1177.9	535.4	603.8	487.8	297.5
87.5°	223.1	270.7	496.8	996.5	1573.5	1517.0	288.5	184.4	261.8	223.1	107.1
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°	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3	7332.3
2.5°	7394.8	7442.4	7498.9	7582.2	7653.6	7713.1	7775.5	7814.2	7829.1	7873.7	7870.7
5°	7448.3	7552.4	7692.2	7829.1	7962.9	8043.2	8114.6	8150.3	8183.0	8206.8	8212.8
7.5°	7537.6	7671.4	7891.5	8070.0	8183.0	8248.5	8296.1	8284.2	8296.1	8302.0	8311.0
10°	7614.9	7802.3	8064.1	8233.6	8319.9	8322.9	8311.0	8269.3	8248.5	8251.5	8257.4
12.5°	7707.1	7915.3	8197.9	8340.7	8364.5	8299.1	8248.5	8177.1	8150.3	8138.4	8132.5
15°	7832.0	8070.0	8343.7	8397.2	8337.7	8254.4	8168.2	8052.2	7992.7	7945.1	7960.0
17.5°	7983.8	8245.5	8456.7	8418.0	8290.1	8153.3	8013.5	7838.0	7716.0	7665.5	7668.4
20°	8194.9	8429.9	8543.0	8373.4	8180.1	7971.9	7733.9	7519.7	7406.7	7356.1	7350.2
22.5°	8450.8	8676.8	8626.3	8296.1	8022.4	7689.3	7391.8	7234.2	7177.6	7141.9	7147.9
25°	8757.1	8950.5	8685.8	8183.0	7763.6	7314.5	7085.4	7034.9	7008.1	6981.3	6981.3
27.5°	9155.7	9259.8	8730.4	8016.5	7359.1	6915.9	6832.6	6841.5	6832.6	6788.0	6796.9
30°	9682.2	9661.4	8772.0	7745.8	6895.1	6556.0	6561.9	6600.6	6606.5	6576.8	6591.7
32.5°	10375.3	10164.1	8792.8	7394.8	6451.8	6240.7	6246.6	6288.2	6318.0	6267.4	6291.2
35°	11214.1	10750.1	8760.1	6954.5	6109.8	5940.2	5895.6	5907.5	5916.4	5868.8	5901.6
37.5°	12192.8	11407.5	8614.4	6466.7	5827.2	5645.7	5550.6	5470.2	5422.6	5378.0	5407.8
40°	13266.6	12124.4	8346.6	5990.8	5511.9	5333.4	5190.6	5038.9	4878.3	4818.8	4845.6
42.5°	14391.0	12862.0	8022.4	5535.7	5149.0	5003.2	4851.5	4631.4	4390.5	4268.5	4283.4
45°	15557.0	13617.6	7704.1	5086.5	4777.2	4714.7	4539.2	4274.5	4012.7	3858.0	3846.1
47.5°	16699.2	14331.5	7237.1	4634.4	4429.1	4497.6	4360.7	4116.8	3825.3	3581.4	3554.6
50°	17790.9	15000.8	6472.7	4176.3	4146.6	4432.1	4301.2	3950.2	3617.1	3304.7	3278.0
52.5°	18873.7	15542.1	5494.0	3759.9	3994.9	4414.3	4223.9	3837.2	3429.7	3102.5	3066.8
55°	19792.8	15821.7	4551.1	3402.9	3774.7	4262.6	4131.7	3703.3	3164.9	2816.9	2787.2
57.5°	20316.3	15595.7	3765.8	3051.9	3471.3	4012.7	3974.0	3417.8	2849.6	2581.9	2546.2
60°	20090.3	14679.5	3123.3	2745.5	3182.8	3742.0	3700.4	3135.2	2608.7	2355.9	2320.2
62.5°	18843.9	12933.4	2614.6	2477.8	2921.0	3465.4	3426.7	2918.1	2424.3	2180.4	2141.7
65°	16333.4	10521.1	2219.0	2254.7	2656.3	3132.2	3188.7	2736.6	2278.5	2040.6	2001.9
67.5°	12457.5	7620.9	1909.7	2061.4	2397.5	2805.0	2968.6	2605.7	2156.6	1930.5	1894.8
70°	7100.3	4328.0	1647.9	1874.0	2168.5	2501.6	2799.1	2501.6	2025.7	1838.3	1814.5
72.5°	2692.0	1987.0	1424.8	1686.6	1948.3	2245.8	2611.7	2338.0	1874.0	1734.2	1710.4
75°	1436.7	1210.7	1198.8	1466.5	1695.5	1995.9	2376.7	2177.4	1760.9	1832.3	1891.8
77.5°	978.6	856.7	1002.4	1255.3	1418.9	1719.3	2126.8	1933.5	1526.0	1520.0	1401.0
80°	678.2	606.8	815.0	1011.4	1097.6	1445.6	1856.1	1659.8	1243.4	1160.1	1109.5
82.5°	407.5	395.6	609.8	755.5	776.4	1115.5	1537.9	1392.1	1017.3	886.4	892.4
85°	223.1	235.0	389.7	443.2	452.1	779.3	1204.7	1076.8	782.3	657.4	663.3
87.5°	62.5	80.3	142.8	175.5	217.1	404.5	716.9	639.5	392.6	273.7	273.7
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)