

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: P883437

Luminaire Tested: **NAV-SB3D-740-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883437  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-740-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

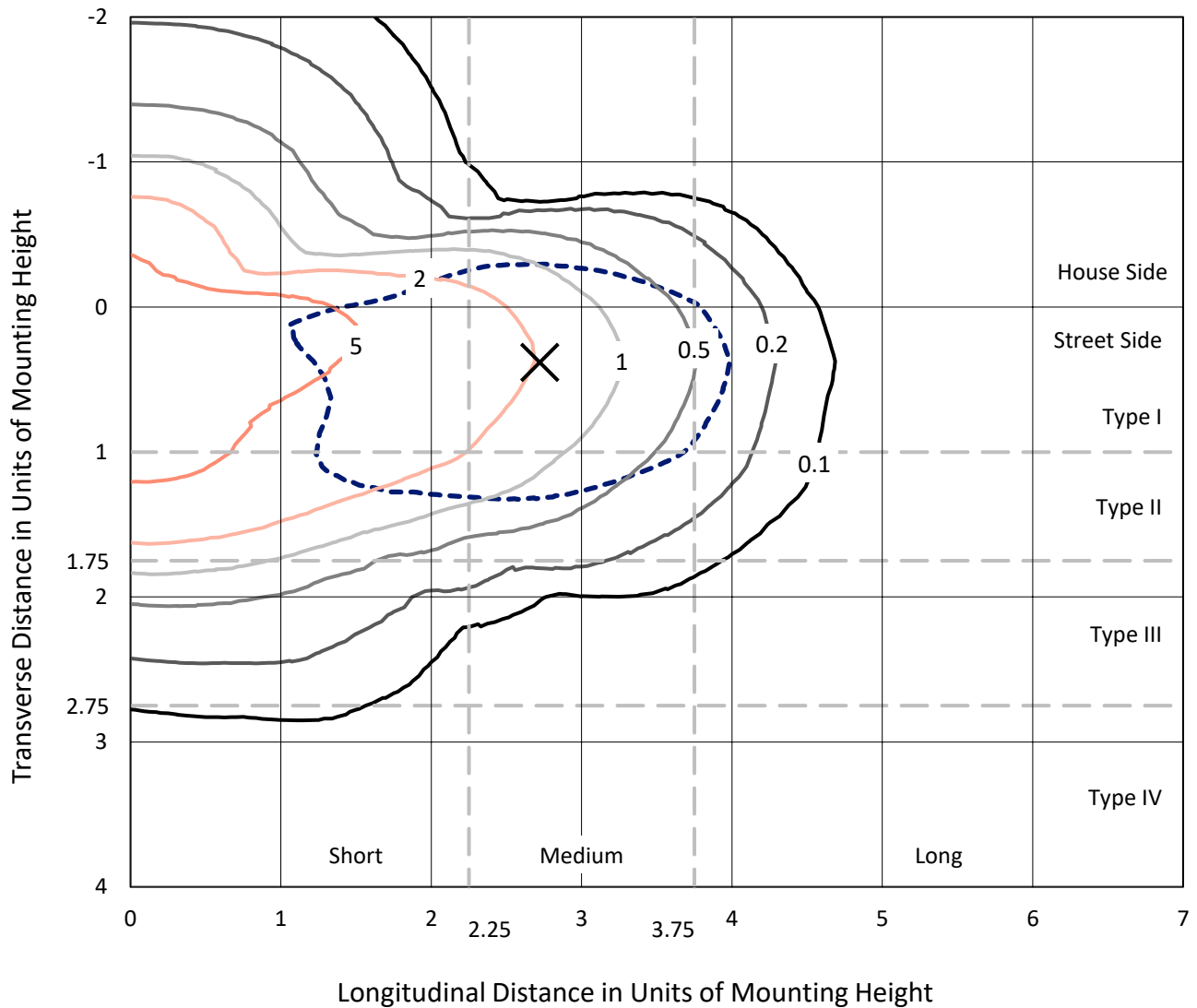
Lumens per Lamp: N/A  
Luminaire Lumens: 32606 lumens  
Efficiency: N/A  
Efficacy: 149.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G4  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
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

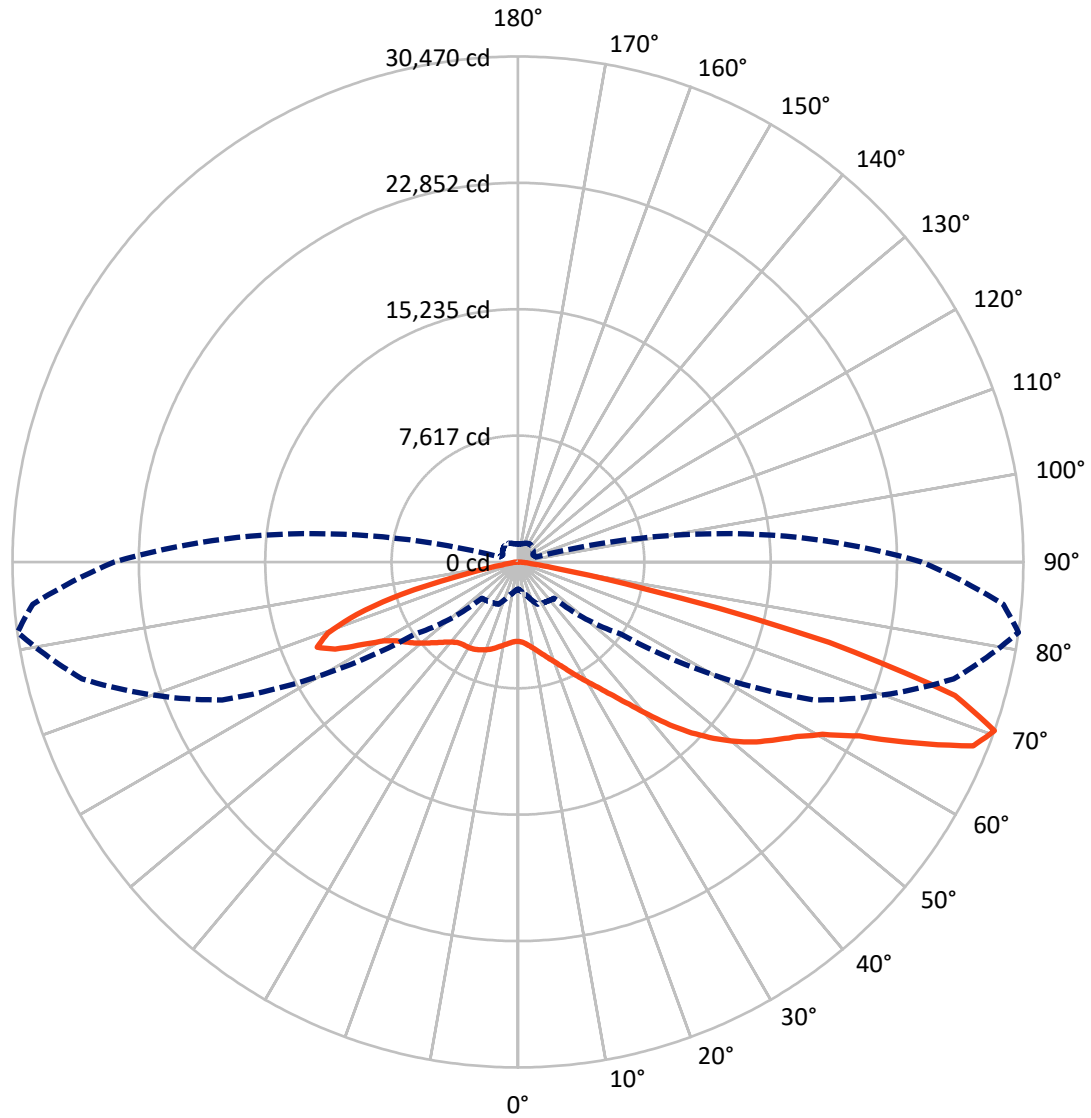
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8038.2	0.0	8038.2
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	24567.8	0.0	24567.8
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	32606.0	0.0	32606.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	451.4	1.4
10°-20°	1296.8	4.0
20°-30°	2169.4	6.7
30°-40°	3389.1	10.4
40°-50°	5397.6	16.6
50°-60°	7511.4	23.0
60°-70°	7857.3	24.1
70°-80°	4106.6	12.6
80°-90°	426.4	1.3
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°	32606.0	100.0
0°-180°	32606.0	100.0

**Coefficient of Utilization**



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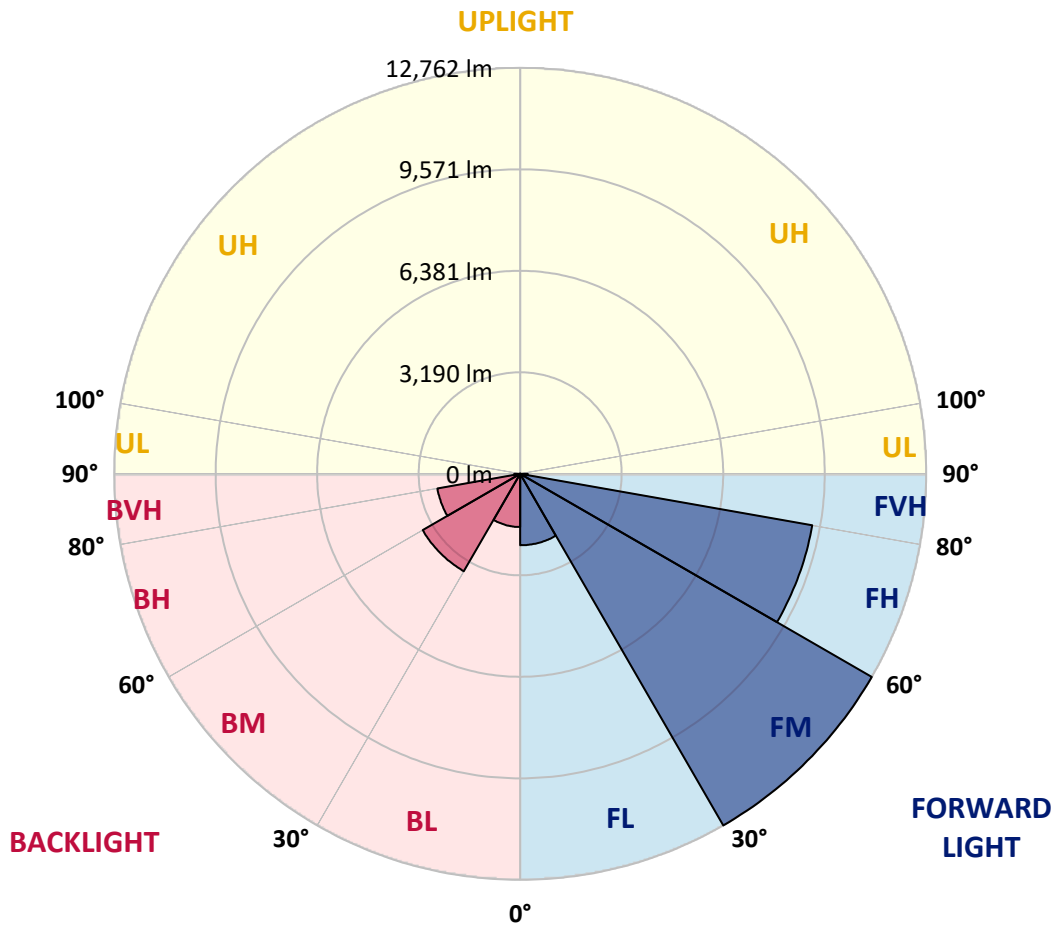
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2245.3	6.9			
FM (30°-60°)	12761.7	39.1			
FH (60°-80°)	9322.2	28.6			G4/12000
FVH (80°-90°)	238.7	0.7			G3/500
BL (0°-30°)	1672.2	5.1	B3/2500		
BM (30°-60°)	3536.5	10.8	B3/5000		
BH (60°-80°)	2641.8	8.1	B4/5000		G4/5000
BVH (80°-90°)	187.7	0.6			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°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4
2.5°	4894.6	4922.3	4913.7	4905.0	4905.0	4892.9	4891.2	4873.9	4860.0	4837.5	4832.4
5°	4956.9	4986.3	4982.9	4989.8	5012.3	5017.5	5022.7	5012.3	4984.6	4956.9	4944.8
7.5°	4901.6	4934.4	4944.8	4986.3	5055.5	5117.8	5164.5	5183.6	5157.6	5117.8	5098.8
10°	4714.7	4751.0	4787.4	4886.0	5008.8	5155.9	5280.5	5354.9	5349.7	5311.6	5278.7
12.5°	4335.8	4373.9	4451.7	4643.8	4868.7	5128.2	5360.1	5515.8	5569.4	5541.7	5484.6
15°	4033.0	4065.9	4124.7	4322.0	4614.4	5008.8	5389.5	5692.2	5828.9	5813.4	5744.1
17.5°	4024.4	4038.2	4074.5	4168.0	4392.9	4822.0	5358.3	5865.3	6126.5	6124.8	6038.3
20°	4176.6	4181.8	4202.6	4221.6	4349.6	4680.1	5278.7	6008.9	6460.4	6460.4	6367.0
22.5°	4387.7	4384.2	4405.0	4387.7	4450.0	4668.0	5228.6	6135.2	6832.4	6860.1	6742.5
25°	4704.3	4687.0	4681.8	4642.0	4654.1	4780.4	5283.9	6278.8	7273.6	7330.7	7183.6
27.5°	5126.5	5098.8	5079.8	4988.1	4956.9	5012.3	5453.5	6451.8	7765.0	7863.6	7676.7
30°	5676.7	5626.5	5598.8	5439.6	5327.2	5335.8	5709.5	6681.9	8278.8	8438.0	8201.0
32.5°	6427.6	6349.7	6275.3	6014.1	5808.2	5740.7	6040.0	7000.2	8836.0	9090.3	8785.8
35°	7268.4	7206.1	7126.6	6723.4	6406.8	6251.1	6486.4	7444.9	9488.2	9891.4	9495.1
37.5°	8078.1	8024.5	8062.6	7519.3	7111.0	6884.3	7071.2	8041.8	10292.8	10887.9	10384.5
40°	8915.5	8874.0	8879.2	8360.2	7884.4	7630.0	7780.6	8791.0	11214.9	12073.1	11453.7
42.5°	9825.6	9794.5	9690.7	9230.4	8695.8	8458.8	8597.2	9656.1	12204.6	13422.6	12626.7
45°	10844.7	10825.6	10728.8	10201.1	9588.6	9322.1	9509.0	10611.1	13199.4	14692.6	13805.0
47.5°	11725.3	11740.9	11728.8	11284.1	10649.2	10258.2	10481.3	11607.7	14125.1	15886.4	14934.8
50°	12149.2	12230.5	12349.9	12211.5	11817.0	11419.1	11462.3	12569.7	15007.5	17005.8	16017.9
52.5°	11927.8	12081.7	12407.0	12628.5	12780.7	12697.7	12581.8	13524.7	15837.9	18016.2	17042.1
55°	11102.5	11318.7	11858.6	12393.2	13170.0	13773.8	13926.1	14583.6	16647.7	18905.5	18011.0
57.5°	9599.0	9950.2	10434.6	11516.0	12824.0	14294.6	15493.6	16052.5	17505.8	19855.4	19024.9
60°	7021.0	7491.6	8093.7	9702.8	11612.9	14016.1	16827.6	18308.6	18725.6	21085.5	20345.0
62.5°	4493.2	4783.9	5337.6	6853.2	9048.8	12588.7	17235.9	21128.8	20793.1	23102.9	22324.3
65°	3076.2	3263.1	3770.0	4621.3	5849.7	9370.6	16142.4	23243.0	24077.0	26300.2	25708.5
67.5°	2235.4	2377.2	2809.8	3555.5	3811.6	5545.2	12526.4	23146.2	27269.1	29594.5	28674.0
70°	1629.8	1730.2	2093.5	2809.8	2932.6	3084.9	7588.5	19675.4	27199.9	30469.9	29367.8
72.5°	1207.7	1276.9	1520.8	2180.0	2373.8	2083.1	3756.2	14299.8	23372.8	27559.8	26675.7
75°	873.7	925.6	1105.6	1667.9	1899.7	1586.6	1873.8	8356.7	16303.3	19386.5	19542.2
77.5°	667.8	707.6	825.3	1221.5	1520.8	1190.4	1162.7	3844.4	7730.4	7768.4	8204.4
80°	536.4	562.3	626.3	859.9	1166.1	891.0	757.8	1552.0	2443.0	2067.5	2169.6
82.5°	394.5	437.7	529.4	603.8	833.9	614.2	462.0	783.8	929.1	799.3	806.3
85°	224.9	254.3	320.1	432.5	532.9	375.4	264.7	347.8	432.5	354.7	316.6
87.5°	79.6	103.8	112.5	169.6	231.8	155.7	102.1	100.3	141.9	105.5	88.2
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°	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4	4780.4
2.5°	4815.1	4806.4	4771.8	4725.1	4676.6	4629.9	4614.4	4581.5	4559.0	4546.9	4560.7
5°	4911.9	4884.3	4802.9	4699.1	4590.1	4472.5	4389.4	4313.3	4257.9	4206.0	4226.8
7.5°	5050.4	5001.9	4861.8	4680.1	4486.3	4290.8	4145.5	4034.7	3960.3	3911.9	3922.3
10°	5211.3	5136.9	4922.3	4650.7	4351.4	4071.1	3899.8	3804.6	3757.9	3732.0	3738.9
12.5°	5396.4	5290.8	4984.6	4583.2	4145.5	3825.4	3707.7	3680.1	3681.8	3683.5	3687.0
15°	5624.8	5477.7	5034.8	4436.1	3877.3	3636.8	3616.0	3661.0	3707.7	3730.2	3728.5
17.5°	5882.6	5674.9	5043.4	4193.9	3614.3	3515.7	3581.4	3678.3	3749.3	3780.4	3787.3
20°	6159.4	5875.6	4981.1	3851.3	3398.0	3417.1	3534.7	3659.3	3737.2	3777.0	3787.3
22.5°	6476.0	6090.2	4832.4	3491.5	3221.6	3309.8	3448.2	3569.3	3650.6	3690.4	3700.8
25°	6837.6	6330.7	4598.8	3188.7	3069.3	3188.7	3327.1	3427.5	3493.2	3529.5	3539.9
27.5°	7239.0	6581.5	4287.4	2948.2	2936.1	3064.1	3178.3	3256.2	3290.8	3318.5	3328.8
30°	7642.1	6809.9	3910.2	2766.5	2820.2	2941.3	3022.6	3057.2	3067.6	3072.8	3084.9
32.5°	8078.1	7007.2	3514.0	2616.0	2709.4	2821.9	2870.3	2885.9	2837.5	2804.6	2815.0
35°	8605.8	7218.3	3126.4	2496.6	2600.4	2697.3	2712.9	2699.1	2642.0	2574.5	2577.9
37.5°	9258.1	7481.2	2816.7	2411.9	2498.4	2562.4	2543.3	2539.9	2545.1	2465.5	2470.7
40°	10057.5	7823.8	2590.1	2346.1	2415.3	2429.2	2375.5	2404.9	2430.9	2309.8	2313.2
42.5°	10945.0	8237.3	2446.5	2301.1	2346.1	2313.2	2230.2	2263.1	2259.6	2100.4	2098.7
45°	11849.9	8687.2	2396.3	2268.2	2282.1	2216.3	2124.6	2133.3	2060.6	1917.0	1922.2
47.5°	12749.6	9169.9	2427.4	2240.6	2202.5	2128.1	2057.2	2019.1	1911.8	1804.6	1804.6
50°	13632.0	9676.8	2541.6	2185.2	2093.5	2050.2	1998.3	1930.9	1816.7	1725.0	1718.1
52.5°	14450.3	10187.2	2669.6	2093.5	1956.8	1982.8	1949.9	1872.0	1759.6	1666.1	1667.9
55°	15225.5	10697.6	2719.8	1967.2	1828.8	1923.9	1904.9	1761.3	1626.4	1550.2	1543.3
57.5°	16069.8	11311.8	2664.5	1806.3	1725.0	1856.5	1783.8	1624.6	1546.8	1489.7	1484.5
60°	17239.4	12275.5	2545.1	1607.3	1626.4	1756.1	1631.5	1565.8	1481.0	1417.0	1413.5
62.5°	19182.3	14073.2	2353.0	1410.1	1510.4	1607.3	1558.9	1493.1	1406.6	1344.3	1344.3
65°	22054.4	16571.5	1991.4	1256.1	1380.7	1462.0	1481.0	1415.3	1325.3	1259.6	1263.0
67.5°	24476.7	18139.1	1507.0	1128.1	1247.4	1344.3	1398.0	1334.0	1238.8	1174.8	1176.5
70°	24343.4	17000.6	1150.6	1001.8	1129.8	1228.4	1297.6	1247.4	1145.4	1084.8	1090.0
72.5°	21621.9	14222.0	930.8	873.7	1010.4	1107.3	1190.4	1152.3	1048.5	989.7	989.7
75°	15884.6	10095.5	744.0	744.0	861.6	981.0	1072.7	1048.5	953.3	911.8	899.7
77.5°	6695.7	4235.4	583.1	617.7	716.3	842.6	956.8	965.4	882.4	934.3	847.8
80°	1780.3	1167.9	444.7	486.2	562.3	695.5	832.2	828.7	738.8	690.3	641.9
82.5°	678.2	460.2	316.6	342.6	406.6	532.9	659.2	680.0	590.0	510.4	510.4
85°	261.3	197.2	195.5	205.9	237.0	353.0	498.3	515.6	444.7	377.2	389.3
87.5°	67.5	58.8	72.7	69.2	109.0	188.6	285.5	295.9	271.6	157.4	224.9
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)