

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: P884829

Luminaire Tested: **NAV-SB5D-827-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884829
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41983 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

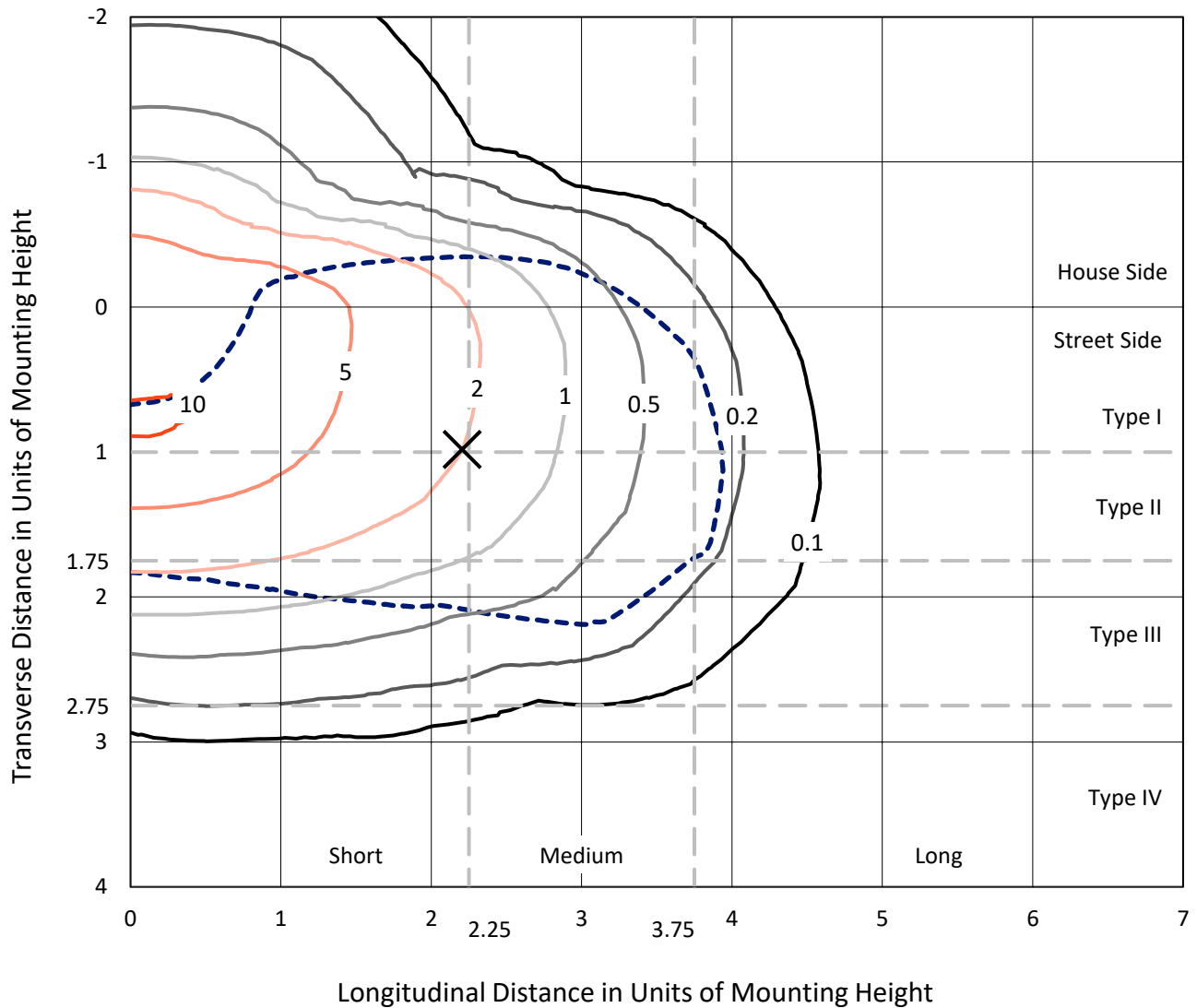
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884829
 CATALOG NUMBER: NAV-SB5D-827-U-T3

Iso-Footcandle Lines of Horizontal Illumination

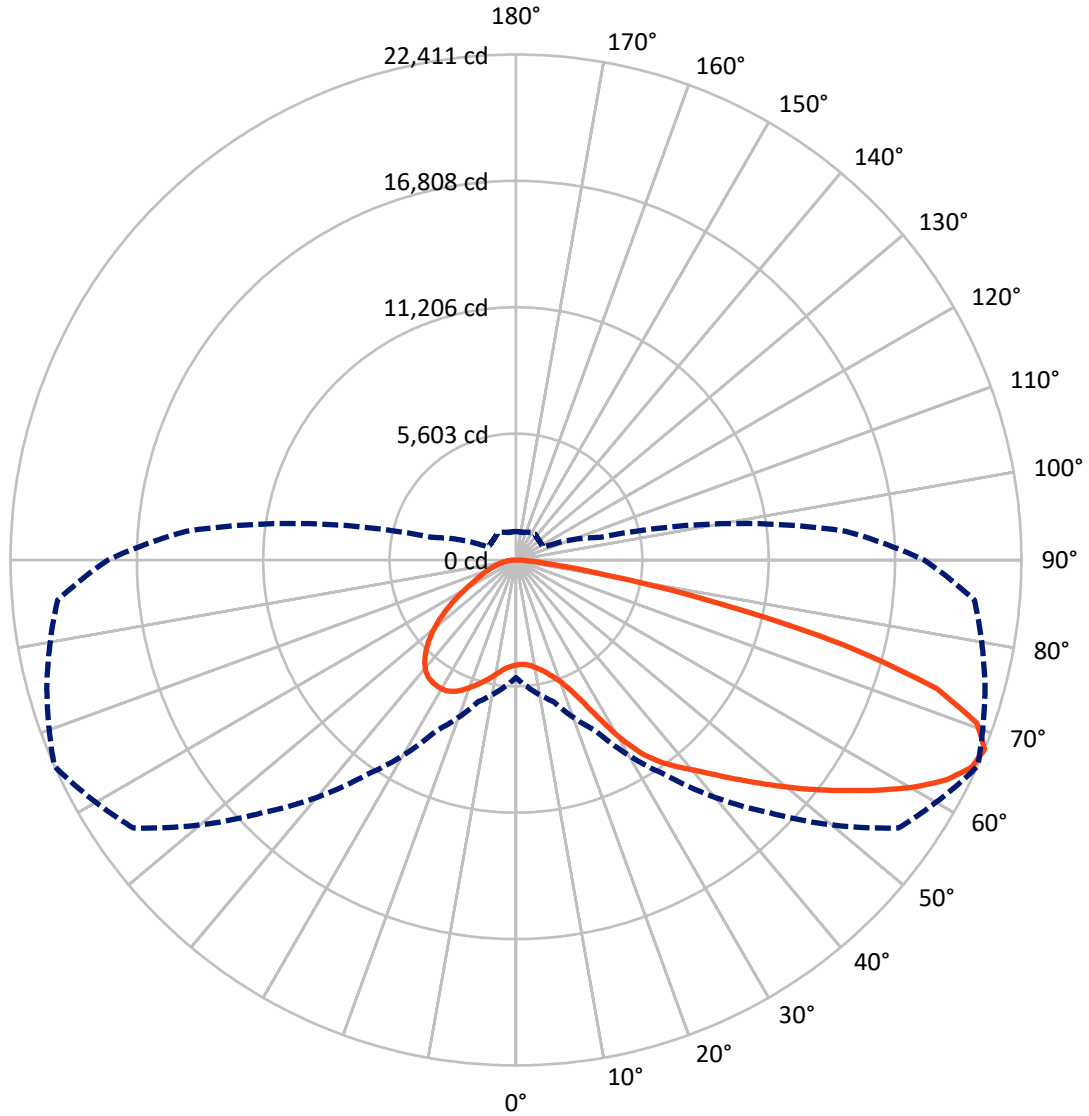
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc
 Type III - Short - N/A

REPORT NUMBER: P884829
CATALOG NUMBER: NAV-SB5D-827-U-T3

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P884829
 CATALOG NUMBER: NAV-SB5D-827-U-T3

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10439.0	0.0	10439.0
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	31544.0	0.0	31544.0
	% Fixture	75.1	0.0	75.1
Total	Lumens	41983.0	0.0	41983.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	461.7	1.1
10°-20°	1525.3	3.6
20°-30°	2939.9	7.0
30°-40°	5154.8	12.3
40°-50°	7663.5	18.3
50°-60°	9714.2	23.1
60°-70°	9505.1	22.6
70°-80°	4534.0	10.8
80°-90°	484.6	1.2
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°	41983.0	100.0
0°-180°	41983.0	100.0

Coefficient of Utilization



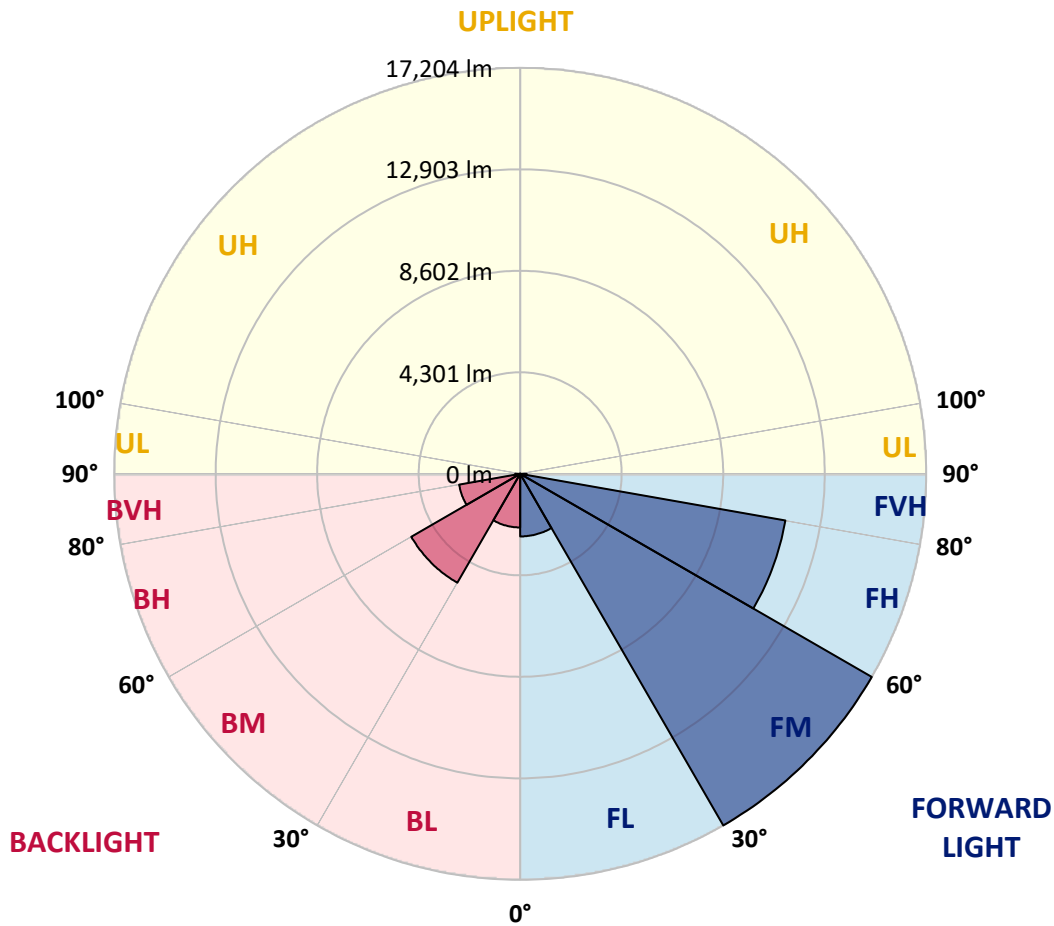
REPORT NUMBER: P884829
 CATALOG NUMBER: NAV-SB5D-827-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2652.9	6.3			
FM (30°-60°)	17204.3	41.0			
FH (60°-80°)	11412.1	27.2			G4/12000
FVH (80°-90°)	274.7	0.7			G3/500
BL (0°-30°)	2274.0	5.4	B3/2500		
BM (30°-60°)	5328.2	12.7	B4/8500		
BH (60°-80°)	2627.0	6.3	B4/5000		G4/5000
BVH (80°-90°)	209.8	0.5			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 III Short



REPORT NUMBER: P884829

CATALOG NUMBER: NAV-SB5D-827-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5
2.5°	4607.9	4634.4	4627.8	4616.8	4614.6	4619.0	4625.6	4632.2	4630.0	4641.0	4658.7
5°	4594.7	4621.2	4619.0	4619.0	4627.8	4645.4	4656.5	4667.5	4656.5	4669.7	4694.0
7.5°	4603.5	4623.4	4632.2	4641.0	4663.1	4696.2	4722.6	4746.9	4733.7	4749.1	4780.0
10°	4716.0	4731.5	4740.3	4740.3	4755.7	4793.2	4819.7	4863.8	4852.8	4877.1	4916.8
12.5°	4921.2	4936.6	4936.6	4927.8	4938.8	4963.1	4971.9	5020.4	5000.6	5040.3	5080.0
15°	5172.6	5203.5	5179.2	5163.8	5168.2	5192.5	5190.3	5227.8	5207.9	5241.0	5276.3
17.5°	5450.6	5490.3	5450.6	5448.4	5439.5	5466.0	5468.2	5501.3	5466.0	5490.3	5514.5
20°	5779.2	5834.4	5801.3	5812.3	5792.5	5803.5	5814.5	5863.0	5807.9	5825.5	5818.9
22.5°	6242.4	6308.6	6273.3	6315.2	6302.0	6293.2	6291.0	6377.0	6291.0	6297.6	6233.6
25°	6917.4	6996.8	6935.1	6992.4	6992.4	7021.1	7054.2	7164.5	7021.1	6979.2	6813.8
27.5°	7914.5	7993.9	7872.5	7907.8	7896.8	7967.4	7932.1	8205.6	8051.2	7982.8	7649.8
30°	9114.4	9255.6	9026.2	9017.4	9006.3	9118.8	9169.6	9350.4	9193.8	9125.4	8724.0
32.5°	10411.4	10559.2	10285.7	10206.3	10164.4	10232.8	10190.9	10336.4	10228.4	10122.5	9626.2
35°	11783.4	11929.0	11668.7	11514.3	11346.7	11203.3	11053.3	11090.8	10989.4	10828.3	10314.4
37.5°	13080.5	13347.4	13071.6	12906.2	12597.4	12317.3	11898.2	11723.9	11629.0	11481.3	10962.9
40°	14401.7	14553.9	14344.4	14203.2	13867.9	13429.0	12758.4	12390.0	12262.1	12118.7	11679.8
42.5°	15374.5	15520.1	15407.6	15310.5	15048.1	14538.5	13671.6	13210.6	13025.3	12864.3	12491.5
45°	16146.5	16254.6	16184.0	16219.3	16106.8	15612.7	14617.9	14090.7	13898.8	13702.5	13409.1
47.5°	16457.6	16572.3	16684.8	16894.3	17086.2	16722.3	15634.8	15043.6	14840.7	14640.0	14351.0
50°	16422.3	16539.2	16865.6	17311.2	17906.8	17785.5	16706.8	16058.3	15870.8	15641.4	15374.5
52.5°	16139.9	16272.3	16691.4	17432.5	18381.0	18581.8	17798.7	17106.1	16929.6	16656.1	16389.2
55°	15398.8	15478.2	16106.8	17156.8	18493.5	19137.6	18868.5	18222.2	18045.7	17664.1	17373.0
57.5°	14024.6	14139.3	15054.7	16413.4	18211.2	19514.8	19808.2	19395.7	19225.9	18676.6	18372.2
60°	12231.2	12414.3	13462.1	15165.0	17492.1	19512.6	20661.8	20549.3	20408.2	19673.6	19356.0
62.5°	10201.9	10413.6	11421.7	13400.3	16234.8	18959.0	21195.6	21515.5	21442.7	20593.5	20187.6
65°	7835.0	7980.6	8984.3	11117.3	14278.2	17770.0	21257.4	22175.0	22188.3	21292.7	20622.1
67.5°	5216.7	5635.9	6507.1	8342.4	11657.7	15826.7	20714.8	22283.1	22411.1	21533.1	20403.8
70°	2545.5	3097.0	3950.6	5421.9	8342.4	12846.7	19296.4	21396.4	21680.9	20831.7	19102.3
72.5°	1056.6	1235.3	1700.7	2675.7	4788.8	8668.8	16446.5	18992.0	19519.2	18458.2	16060.5
75°	712.5	772.0	972.8	1372.0	2181.5	4274.9	11860.7	14161.3	15010.6	13940.7	11395.2
77.5°	549.2	586.7	708.1	959.5	1297.0	1616.9	6348.3	8534.3	8973.2	8307.1	5929.2
80°	432.3	461.0	529.4	699.2	919.8	864.7	2163.9	3866.8	4120.5	3456.5	1905.8
82.5°	375.0	386.0	379.4	474.2	611.0	505.1	710.3	1427.2	1574.9	1142.6	622.0
85°	271.3	302.2	315.4	293.4	324.3	255.9	291.2	505.1	555.9	496.3	350.7
87.5°	110.3	163.2	200.7	189.7	119.1	72.8	90.4	147.8	169.8	185.3	114.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P884829

CATALOG NUMBER: NAV-SB5D-827-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5	4656.5
2.5°	4660.9	4676.3	4687.4	4700.6	4709.4	4722.6	4749.1	4764.6	4766.8	4777.8	4775.6
5°	4702.8	4724.8	4749.1	4784.4	4824.1	4857.2	4907.9	4943.2	4956.5	4967.5	4965.3
7.5°	4793.2	4824.1	4868.2	4930.0	4987.3	5031.5	5093.2	5135.1	5177.0	5192.5	5194.7
10°	4927.8	4971.9	5035.9	5119.7	5181.5	5238.8	5302.8	5338.1	5380.0	5397.6	5406.4
12.5°	5095.4	5141.7	5225.6	5342.5	5399.8	5439.5	5461.6	5452.8	5461.6	5477.0	5481.4
15°	5287.3	5338.1	5432.9	5558.6	5598.4	5563.1	5514.5	5470.4	5463.8	5468.2	5483.6
17.5°	5514.5	5552.0	5662.3	5768.2	5739.5	5593.9	5488.1	5417.5	5382.2	5371.2	5386.6
20°	5832.2	5832.2	5922.6	5988.8	5796.9	5549.8	5384.4	5269.7	5196.9	5166.0	5159.4
22.5°	6218.2	6182.9	6240.2	6193.9	5785.8	5426.3	5196.9	4998.4	4888.1	4844.0	4837.3
25°	6707.9	6666.0	6650.5	6363.8	5706.4	5230.0	4857.2	4616.8	4519.7	4495.4	4499.9
27.5°	7446.8	7340.9	7140.2	6456.4	5560.9	4921.2	4460.2	4237.4	4182.2	4184.4	4191.0
30°	8430.6	8218.9	7727.0	6471.9	5322.6	4484.4	4054.3	3895.5	3869.0	3880.0	3917.5
32.5°	9341.6	9140.9	8326.9	6401.3	4956.5	4056.5	3690.3	3584.4	3544.7	3558.0	3575.6
35°	10056.3	10001.2	8882.8	6302.0	4506.5	3655.0	3363.9	3273.4	3196.2	3178.6	3191.8
37.5°	10731.3	10709.2	9299.7	6163.0	4060.9	3370.5	3101.4	2982.3	2869.8	2808.0	2810.2
40°	11472.4	11450.4	9573.2	5949.1	3666.1	3123.4	2865.4	2708.7	2569.8	2457.3	2468.3
42.5°	12306.2	12176.1	9703.4	5642.5	3330.8	2913.9	2673.4	2461.7	2278.6	2174.9	2181.5
45°	13217.2	12923.9	9701.2	5252.0	3048.4	2722.0	2468.3	2168.3	1998.5	1901.4	1897.0
47.5°	14183.4	13638.5	9582.0	4819.7	2774.9	2510.2	2150.7	1921.3	1808.8	1749.2	1736.0
50°	15180.4	14306.9	9379.1	4323.4	2494.8	2269.8	1952.1	1795.5	1709.5	1654.4	1634.5
52.5°	16117.9	14913.5	9134.3	3760.9	2210.2	2036.0	1863.9	1742.6	1652.2	1590.4	1563.9
55°	16989.2	15436.3	8788.0	3185.2	1978.6	1879.4	1822.0	1720.5	1616.9	1544.1	1515.4
57.5°	17763.4	15776.0	8190.2	2644.8	1813.2	1771.3	1777.9	1683.0	1563.9	1502.2	1462.5
60°	18407.5	16025.2	7305.6	2144.0	1678.6	1665.4	1709.5	1612.4	1473.5	1402.9	1372.0
62.5°	18793.5	16020.8	6220.4	1755.8	1563.9	1568.3	1619.1	1524.2	1383.0	1316.9	1297.0
65°	18760.4	15628.2	5029.3	1502.2	1453.6	1458.0	1524.2	1427.2	1308.0	1268.3	1266.1
67.5°	18096.5	14670.9	3858.0	1336.7	1332.3	1352.2	1429.4	1361.0	1261.7	1257.3	1263.9
70°	16298.7	12683.4	2779.3	1204.4	1206.6	1235.3	1336.7	1319.1	1237.5	1246.3	1244.1
72.5°	13069.4	9670.3	1866.1	1065.4	1067.6	1113.9	1248.5	1286.0	1213.2	1330.1	1347.8
75°	8704.1	6030.7	1200.0	917.6	919.8	979.4	1171.3	1222.0	1147.0	1325.7	1336.7
77.5°	4182.2	2710.9	869.1	772.0	772.0	827.2	1012.5	1094.1	977.2	1030.1	944.1
80°	1444.8	1019.1	683.8	622.0	608.8	646.3	853.6	948.5	842.6	776.4	727.9
82.5°	569.1	529.4	549.2	483.1	439.0	463.2	663.9	783.1	619.8	560.3	558.1
85°	326.5	344.1	388.2	319.8	253.7	284.5	487.5	562.5	467.6	412.5	421.3
87.5°	88.2	121.3	178.7	165.4	114.7	121.3	231.6	311.0	269.1	207.3	214.0
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)