

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: P969465

Luminaire Tested: **NAV-SB5D-830-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969465
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34571.2 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): 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: 24 FT

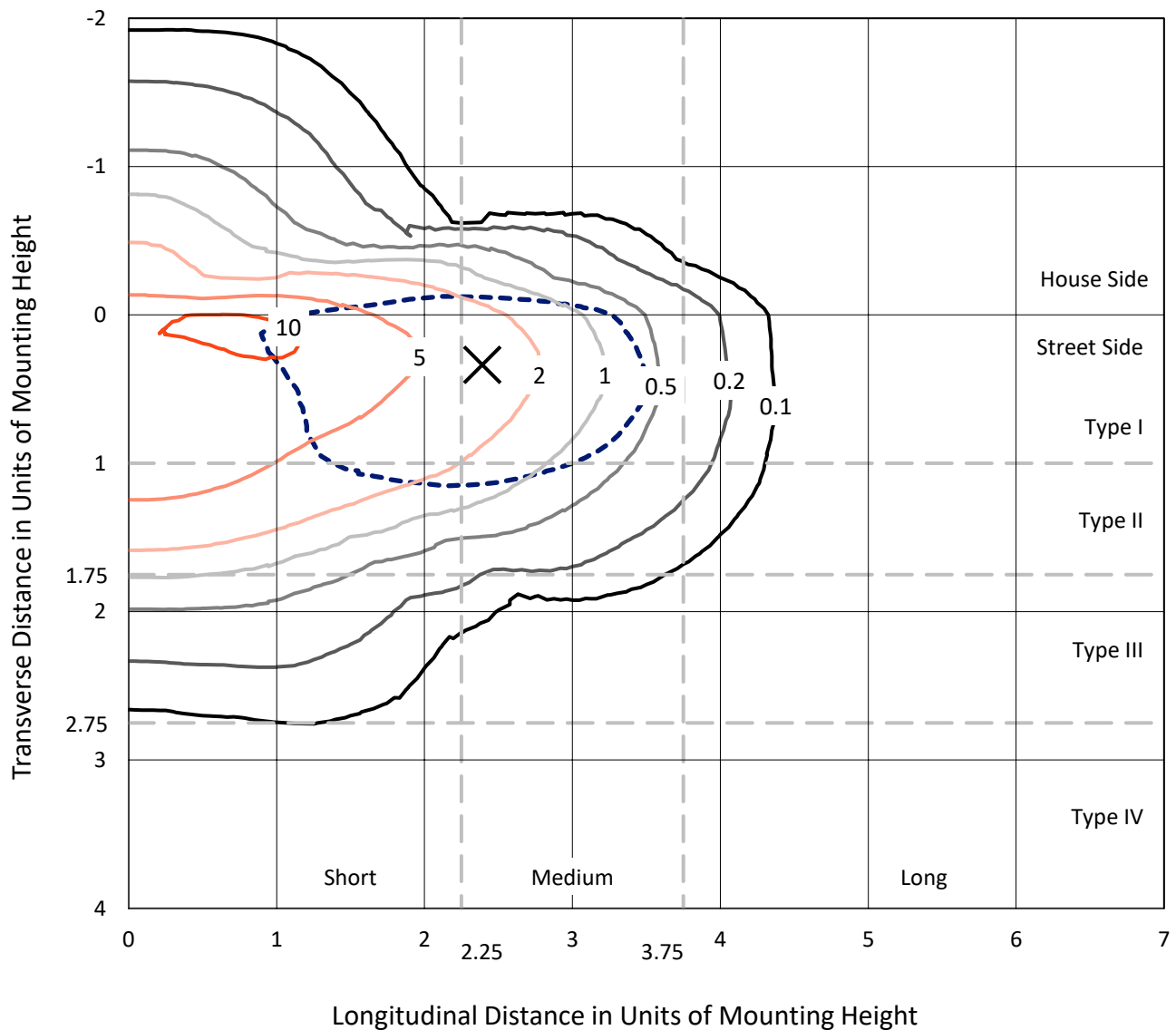


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Iso-Footcandle Lines of Horizontal Illumination

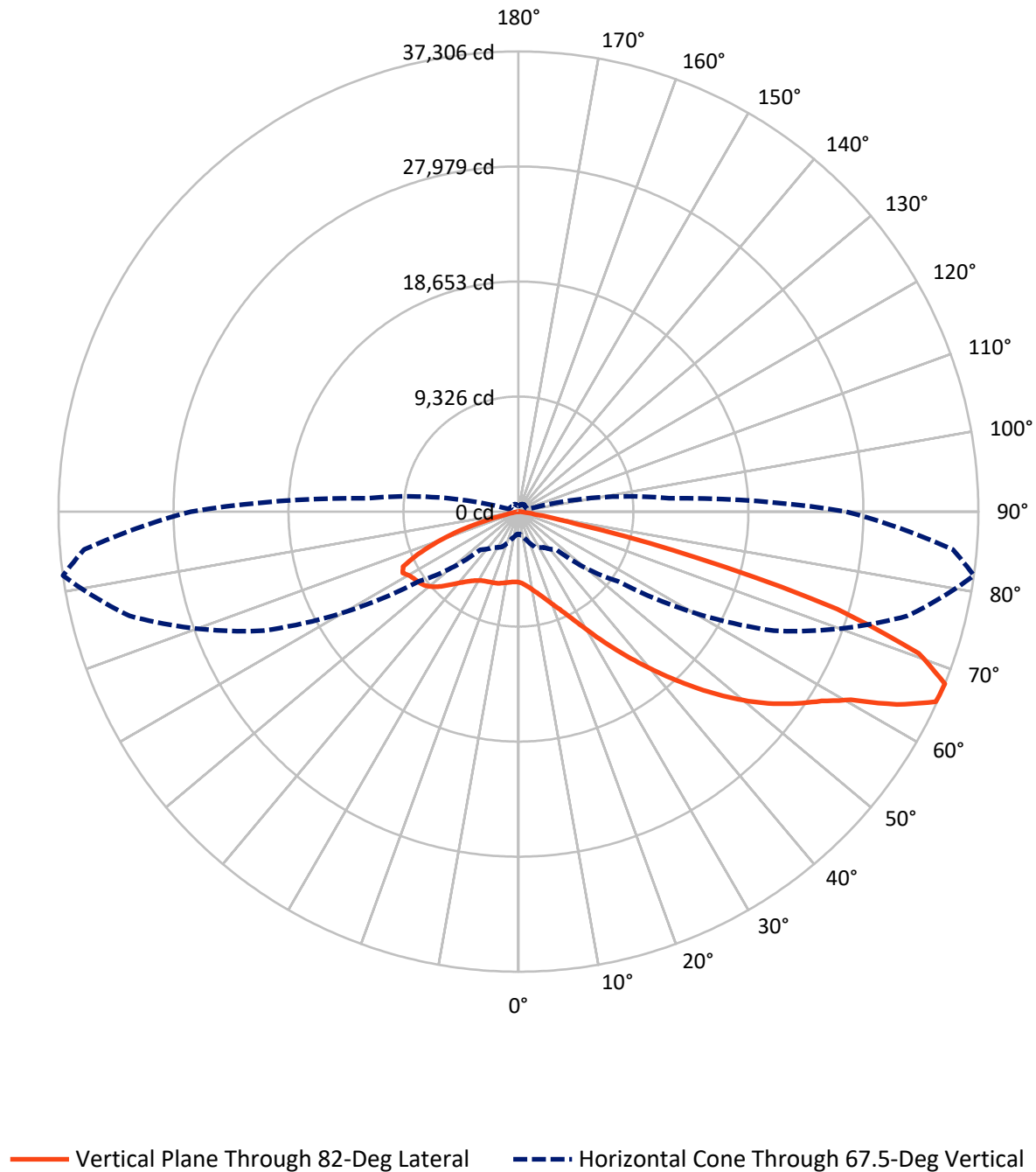
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6262.3	0.0	6262.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	28308.9	0.0	28308.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	34571.2	0.0	34571.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	510.3	1.5
10°-20°	1326.0	3.8
20°-30°	2123.8	6.1
30°-40°	3755.5	10.9
40°-50°	6579.9	19.0
50°-60°	8775.8	25.4
60°-70°	8169.8	23.6
70°-80°	3135.6	9.1
80°-90°	194.7	0.6
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°	34571.2	100.0
0°-180°	34571.2	100.0

Coefficient of Utilization



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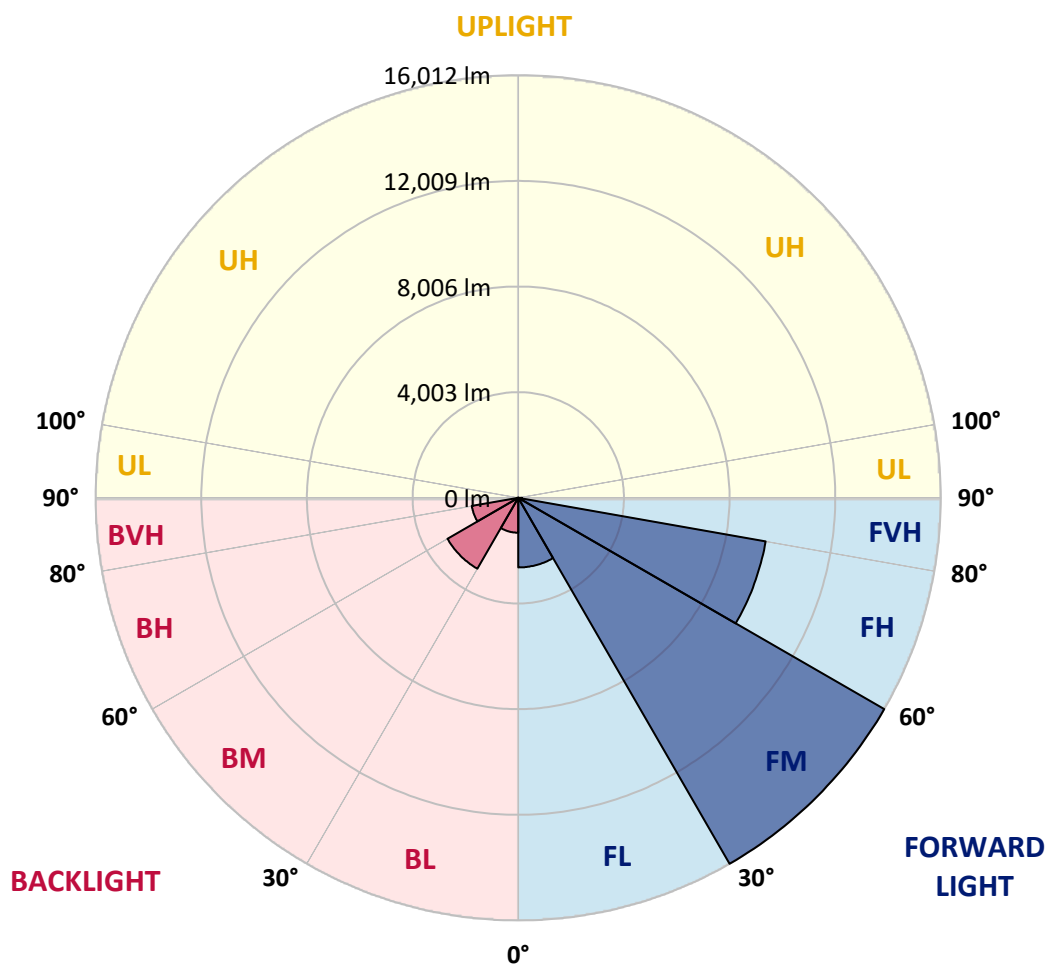
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2637.4	7.6			
FM	(30°-60°)	16012.0	46.3			
FH	(60°-80°)	9518.0	27.5			G4/12000
FVH	(80°-90°)	141.6	0.4			G2/225
BL	(0°-30°)	1322.6	3.8	B3/2500		
BM	(30°-60°)	3099.2	9.0	B3/5000		
BH	(60°-80°)	1787.4	5.2	B3/2500		G3/2500
BVH	(80°-90°)	53.2	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3
2.5°	6053.3	6088.2	6068.3	6058.4	6040.9	6016.0	5996.0	5933.8	5869.2	5826.8	5812.0
5°	6175.3	6210.2	6207.7	6217.6	6230.1	6237.5	6232.5	6162.8	6070.8	5998.6	5956.3
7.5°	6070.8	6110.6	6142.9	6192.7	6279.9	6371.9	6416.7	6401.8	6307.2	6207.7	6155.4
10°	5774.5	5816.9	5894.1	6011.0	6195.2	6394.4	6561.1	6638.3	6578.6	6469.0	6396.8
12.5°	5232.0	5274.2	5426.1	5679.9	5988.7	6334.6	6653.2	6859.8	6874.7	6765.2	6680.5
15°	4622.1	4664.5	4826.2	5144.9	5615.3	6170.3	6703.0	7093.7	7225.6	7131.1	7029.0
17.5°	4243.8	4281.1	4403.1	4659.4	5149.8	5841.8	6685.6	7342.7	7643.8	7569.2	7447.2
20°	4129.3	4161.7	4218.9	4398.2	4806.3	5500.8	6571.1	7576.6	8094.3	8052.0	7915.2
22.5°	4251.3	4281.1	4298.5	4378.2	4634.6	5276.8	6426.6	7815.6	8617.1	8622.0	8455.2
25°	4532.5	4562.4	4542.5	4592.3	4704.2	5207.1	6371.9	8096.9	9274.2	9328.9	9139.7
27.5°	4995.5	4998.0	4950.6	4948.2	4965.6	5311.7	6429.2	8398.0	10103.0	10205.1	9971.1
30°	5923.9	5886.6	5704.8	5508.2	5418.7	5625.2	6588.5	8753.9	11081.2	11262.9	10969.2
32.5°	7355.1	7300.4	6966.8	6496.3	6023.5	6130.5	6874.7	9159.7	12146.6	12475.1	12116.6
35°	8908.3	8893.3	8544.9	7845.5	7019.1	6849.9	7340.1	9692.3	13308.9	13831.6	13406.0
37.5°	10351.9	10344.4	10145.3	9321.5	8315.9	7852.9	8086.8	10389.3	14553.4	15310.1	14807.3
40°	11671.1	11693.5	11494.3	10757.6	9744.6	9139.7	9102.4	11250.5	15937.3	16920.5	16323.1
42.5°	12811.1	12836.0	12634.4	12089.3	11155.9	10563.4	10349.4	12305.8	17288.9	18650.4	17943.4
45°	13585.1	13739.5	13709.6	13274.1	12604.5	11989.7	11847.9	13629.9	18829.6	20484.8	19655.9
47.5°	13804.2	13946.0	14170.1	14229.9	13821.6	13216.8	13386.1	15225.5	20387.8	22321.7	21378.3
50°	13264.1	13396.0	13861.5	14481.2	14765.0	14578.3	14882.0	16935.5	21983.2	24153.6	23068.4
52.5°	12198.7	12333.2	12920.6	13901.3	15058.7	15646.1	16382.9	18620.5	23528.9	25888.5	24668.9
55°	10658.1	10799.9	11554.1	12664.2	14498.6	16086.7	17634.8	20303.1	24945.1	27449.1	26112.5
57.5°	8562.3	8666.8	9450.9	11004.0	13089.9	15648.6	18558.2	22140.0	26279.3	28982.4	27543.7
60°	5580.4	5672.6	6583.5	8315.9	10755.1	14185.1	18742.4	24188.5	28051.5	30976.1	29472.7
62.5°	3711.1	3773.3	4313.5	5585.4	7574.1	11374.9	17664.7	25823.7	30650.1	34445.8	32780.6
65°	2546.3	2608.5	3148.6	4034.7	4893.5	7524.3	14565.9	25607.3	33004.7	37201.1	35232.3
67.5°	1817.0	1869.3	2327.3	3163.6	3541.9	4370.7	9874.0	22839.5	32666.1	37305.7	35364.2
70°	1301.8	1331.7	1710.0	2464.1	2815.1	2625.9	5490.8	17468.0	28601.5	34448.3	32671.2
72.5°	911.0	921.0	1187.3	1876.8	2267.5	1916.5	2613.4	11646.3	21632.2	27038.5	25328.5
75°	617.3	629.8	799.0	1376.5	1819.5	1463.6	1384.0	6245.0	12699.0	14966.6	13415.9
77.5°	378.3	383.3	515.3	940.8	1361.5	1115.1	891.0	2645.8	4913.3	4823.8	4111.9
80°	214.0	214.0	328.5	585.0	928.4	719.3	624.7	1125.0	1555.6	1366.5	1204.7
82.5°	119.5	122.0	238.9	363.4	614.8	425.6	343.5	520.2	672.0	594.9	517.7
85°	49.8	54.7	146.9	171.8	293.7	211.6	139.4	219.0	248.9	221.5	161.7
87.5°	5.0	7.5	44.8	32.4	34.8	42.3	19.9	42.3	34.8	34.8	24.9
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°	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3	5727.3
2.5°	5764.6	5727.3	5632.7	5523.2	5378.8	5309.1	5214.6	5149.8	5095.1	5100.0	5050.3
5°	5876.6	5782.0	5570.5	5306.6	4978.1	4744.1	4495.2	4323.4	4184.0	4154.2	4087.0
7.5°	6030.9	5881.6	5510.7	5035.3	4480.3	4059.6	3683.7	3442.4	3270.6	3215.8	3161.1
10°	6230.1	6013.5	5433.5	4694.3	3895.3	3360.2	2957.0	2767.8	2650.9	2611.0	2581.2
12.5°	6461.5	6165.4	5331.5	4278.7	3293.0	2777.7	2521.4	2426.8	2389.5	2377.1	2369.6
15°	6752.8	6354.5	5177.2	3785.8	2782.8	2421.9	2312.3	2299.9	2304.8	2299.9	2297.3
17.5°	7098.7	6561.1	4925.8	3278.1	2439.3	2240.1	2200.3	2210.3	2222.7	2220.3	2215.2
20°	7477.1	6765.2	4604.7	2827.6	2205.3	2110.7	2088.3	2098.3	2108.2	2103.2	2100.7
22.5°	7907.7	6984.2	4248.8	2476.6	2048.5	1991.3	1966.4	1968.8	1968.8	1958.9	1953.9
25°	8422.9	7225.6	3875.4	2227.7	1929.0	1884.2	1854.3	1844.4	1829.4	1799.6	1794.6
27.5°	9037.7	7482.1	3517.0	2053.5	1834.4	1792.1	1757.3	1732.4	1695.0	1645.2	1640.3
30°	9729.6	7793.2	3213.4	1943.9	1759.7	1717.4	1677.6	1640.3	1585.5	1523.3	1518.3
32.5°	10543.6	8126.7	2991.9	1871.8	1692.6	1647.8	1600.4	1555.6	1495.9	1433.7	1436.1
35°	11514.3	8529.9	2862.4	1821.9	1640.3	1580.6	1528.3	1478.5	1433.7	1378.9	1373.9
37.5°	12567.1	8958.1	2822.5	1797.1	1605.5	1513.3	1453.6	1418.7	1413.8	1381.4	1378.9
40°	13719.6	9465.8	2852.5	1782.2	1568.0	1448.6	1384.0	1376.5	1388.9	1331.7	1334.1
42.5°	14939.2	10068.2	2902.2	1764.7	1515.9	1384.0	1321.6	1321.6	1311.7	1232.0	1232.0
45°	16258.4	10762.6	2952.0	1722.4	1453.6	1319.2	1271.9	1254.5	1212.2	1135.0	1132.5
47.5°	17587.6	11469.4	2989.3	1645.2	1378.9	1264.4	1222.1	1182.3	1120.0	1050.4	1047.9
50°	18849.4	12104.2	2949.5	1530.7	1294.3	1212.2	1167.4	1112.6	1045.4	998.1	990.7
52.5°	19977.0	12654.2	2780.2	1396.4	1204.7	1157.4	1117.6	1060.4	1005.5	955.8	950.8
55°	20957.7	13099.8	2481.5	1269.4	1125.0	1110.1	1070.3	998.1	923.4	881.1	876.2
57.5°	21898.6	13438.4	2108.2	1164.9	1052.9	1057.8	998.1	933.4	863.7	818.9	814.0
60°	23150.5	13891.3	1729.9	1067.8	975.7	990.7	925.9	878.6	791.5	734.3	726.8
62.5°	25151.8	14595.7	1373.9	948.3	886.1	891.0	863.7	806.5	701.9	634.7	629.8
65°	26739.8	14336.9	1082.7	818.9	784.0	791.5	791.5	729.3	617.3	540.1	532.7
67.5°	26560.5	12275.9	863.7	692.0	687.0	692.0	709.4	657.1	547.6	485.3	475.4
70°	24467.3	9764.5	692.0	574.9	597.4	585.0	634.7	599.8	492.8	430.6	423.1
72.5°	19964.5	7034.1	527.7	475.4	458.0	477.9	572.5	540.1	410.7	341.0	333.5
75°	11666.1	3753.4	393.3	375.9	331.1	398.2	507.8	460.4	313.6	251.4	244.0
77.5°	3798.2	1309.2	288.7	276.2	246.4	321.1	433.1	388.3	256.4	199.2	191.7
80°	1018.0	395.8	196.6	181.7	159.3	238.9	343.5	308.6	184.2	129.5	126.9
82.5°	408.2	166.8	114.5	102.1	87.1	164.3	271.3	248.9	136.9	82.1	82.1
85°	131.9	54.7	42.3	32.4	39.9	102.1	161.7	169.2	97.1	42.3	32.4
87.5°	17.4	7.5	7.5	9.9	7.5	17.4	49.8	47.3	27.4	5.0	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)