

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: P882737

Luminaire Tested: **NAV-SB2D-730-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882737
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-SB2D-730-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20229 lumens
Efficiency: N/A
Efficacy: 137.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

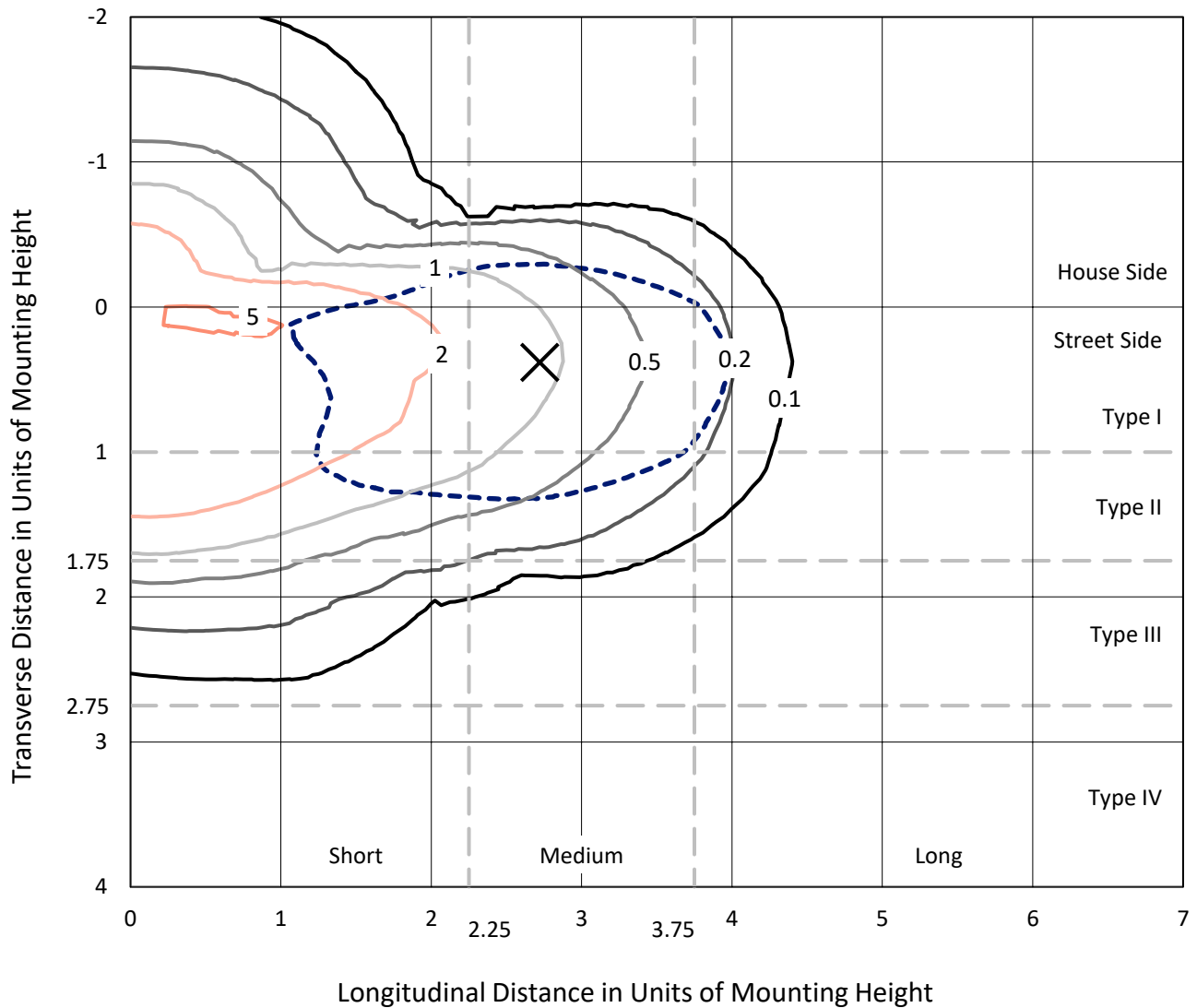
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882737
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Iso-Footcandle Lines of Horizontal Illumination

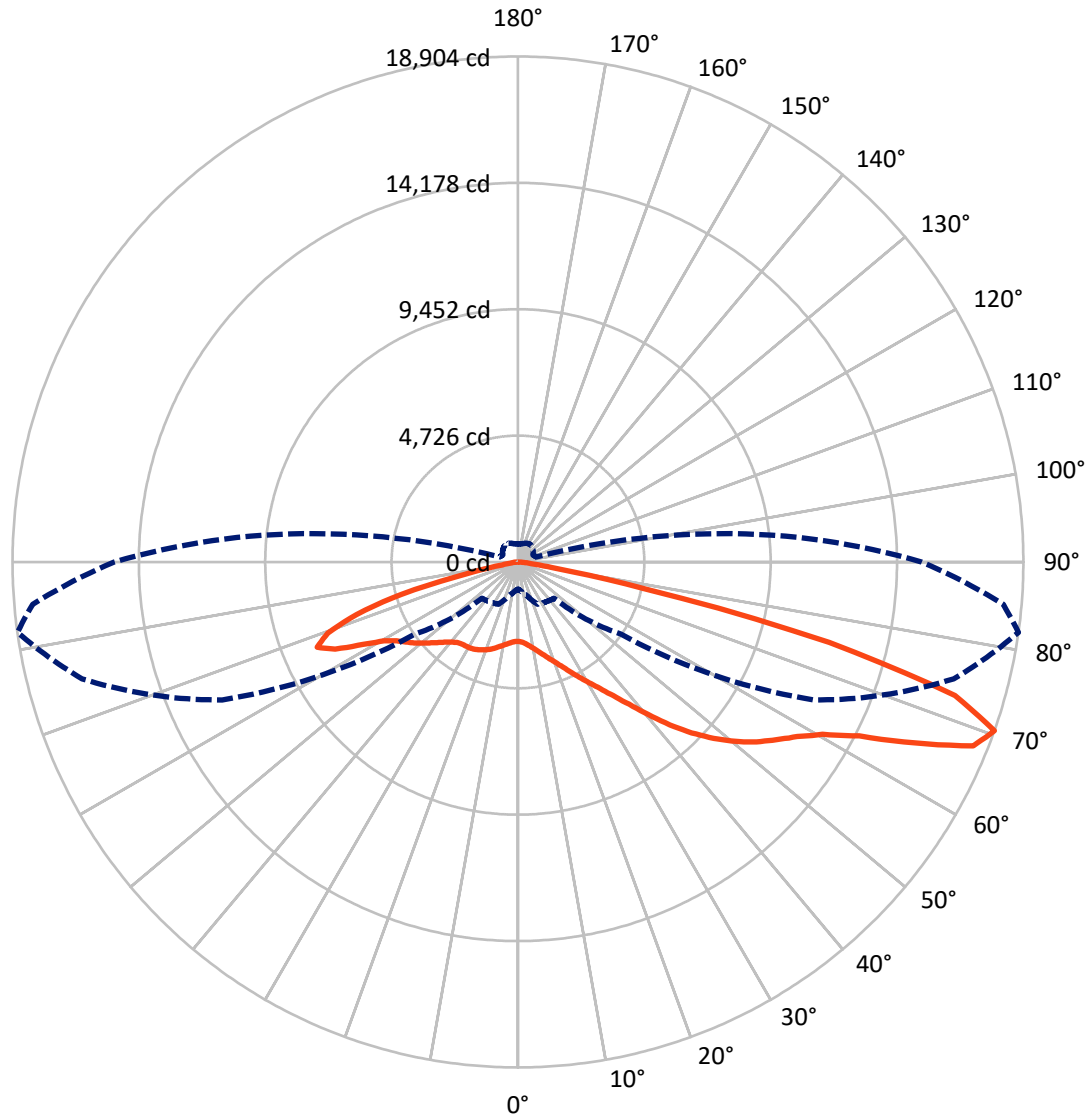
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Medium - N/A

REPORT NUMBER: P882737
CATALOG NUMBER: NAV-SB2D-730-U-T2

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
House Side	Lumens	4986.9	0.0	4986.9
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	15242.1	0.0	15242.1
	% Fixture	75.3	0.0	75.3
Total	Lumens	20229.0	0.0	20229.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.0	1.4
10°-20°	804.5	4.0
20°-30°	1345.9	6.7
30°-40°	2102.6	10.4
40°-50°	3348.7	16.6
50°-60°	4660.1	23.0
60°-70°	4874.7	24.1
70°-80°	2547.8	12.6
80°-90°	264.6	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°	20229.0	100.0
0°-180°	20229.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882737

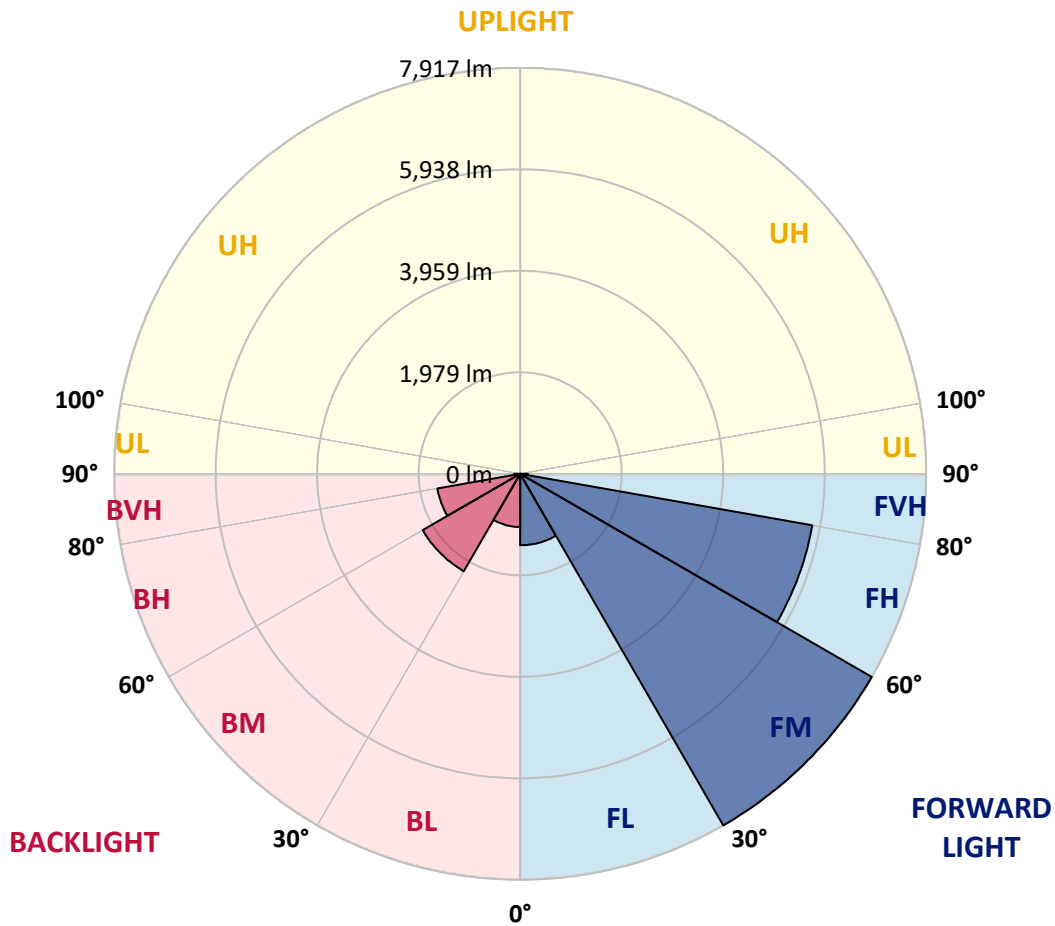
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1393.0	6.9			
FM (30°-60°)	7917.4	39.1			
FH (60°-80°)	5783.5	28.6			G3/7500
FVH (80°-90°)	148.1	0.7			G2/225
BL (0°-30°)	1037.5	5.1	B3/2500		
BM (30°-60°)	2194.1	10.8	B2/2500		
BH (60°-80°)	1639.0	8.1	B3/2500		G3/2500
BVH (80°-90°)	116.5	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



REPORT NUMBER: P882737

CATALOG NUMBER: NAV-SB2D-730-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8
2.5°	3036.7	3053.8	3048.5	3043.1	3043.1	3035.6	3034.5	3023.8	3015.2	3001.2	2998.0
5°	3075.3	3093.6	3091.4	3095.7	3109.7	3112.9	3116.1	3109.7	3092.5	3075.3	3067.8
7.5°	3041.0	3061.4	3067.8	3093.6	3136.5	3175.1	3204.1	3215.9	3199.8	3175.1	3163.3
10°	2925.0	2947.6	2970.1	3031.3	3107.5	3198.8	3276.0	3322.2	3319.0	3295.4	3275.0
12.5°	2690.0	2713.6	2761.9	2881.0	3020.6	3181.6	3325.4	3422.0	3455.3	3438.1	3402.7
15°	2502.1	2522.5	2559.0	2681.4	2862.8	3107.5	3343.7	3531.5	3616.3	3606.6	3563.7
17.5°	2496.7	2505.3	2527.9	2585.8	2725.4	2991.6	3324.3	3638.9	3800.9	3799.9	3746.2
20°	2591.2	2594.4	2607.3	2619.1	2698.5	2903.6	3275.0	3727.9	4008.1	4008.1	3950.1
22.5°	2722.2	2720.0	2732.9	2722.2	2760.8	2896.1	3243.8	3806.3	4238.9	4256.1	4183.1
25°	2918.6	2907.9	2904.6	2880.0	2887.5	2965.8	3278.2	3895.4	4512.6	4548.0	4456.8
27.5°	3180.5	3163.3	3151.5	3094.6	3075.3	3109.7	3383.4	4002.7	4817.5	4878.6	4762.7
30°	3521.8	3490.7	3473.5	3374.8	3305.0	3310.4	3542.2	4145.5	5136.3	5235.0	5088.0
32.5°	3987.7	3939.4	3893.2	3731.2	3603.4	3561.6	3747.3	4343.0	5481.9	5639.7	5450.8
35°	4509.4	4470.7	4421.4	4171.3	3974.8	3878.2	4024.2	4618.9	5886.6	6136.7	5890.9
37.5°	5011.7	4978.5	5002.1	4665.0	4411.7	4271.1	4387.0	4989.2	6385.7	6755.0	6442.6
40°	5531.3	5505.5	5508.7	5186.7	4891.5	4733.7	4827.1	5454.0	6957.8	7490.2	7106.0
42.5°	6095.9	6076.6	6012.2	5726.6	5394.9	5247.9	5333.8	5990.7	7571.8	8327.5	7833.7
45°	6728.1	6716.3	6656.2	6328.8	5948.8	5783.5	5899.4	6583.2	8189.0	9115.4	8564.7
47.5°	7274.5	7284.1	7276.6	7000.8	6606.8	6364.2	6502.7	7201.5	8763.3	9856.0	9265.7
50°	7537.5	7587.9	7662.0	7576.1	7331.4	7084.5	7111.3	7798.3	9310.7	10550.5	9937.6
52.5°	7400.1	7495.6	7697.4	7834.8	7929.3	7877.7	7805.8	8390.8	9826.0	11177.4	10573.1
55°	6888.1	7022.2	7357.1	7688.8	8170.8	8545.4	8639.9	9047.8	10328.3	11729.1	11174.2
57.5°	5955.3	6173.2	6473.7	7144.6	7956.1	8868.5	9612.4	9959.1	10860.7	12318.4	11803.2
60°	4355.9	4647.9	5021.4	6019.7	7204.7	8695.7	10440.0	11358.8	11617.5	13081.6	12622.2
62.5°	2787.6	2968.0	3311.5	4251.8	5613.9	7810.1	10693.3	13108.4	12900.2	14333.2	13850.2
65°	1908.5	2024.4	2339.0	2867.1	3629.2	5813.6	10014.9	14420.2	14937.5	16316.9	15949.8
67.5°	1386.8	1474.9	1743.2	2205.9	2364.7	3440.3	7771.5	14360.0	16918.0	18360.6	17789.6
70°	1011.1	1073.4	1298.8	1743.2	1819.4	1913.9	4708.0	12206.8	16875.0	18903.8	18220.0
72.5°	749.2	792.2	943.5	1352.5	1472.7	1292.4	2330.4	8871.7	14500.7	17098.3	16549.8
75°	542.1	574.3	685.9	1034.8	1178.6	984.3	1162.5	5184.6	10114.7	12027.5	12124.1
77.5°	414.3	439.0	512.0	757.8	943.5	738.5	721.3	2385.1	4796.0	4819.6	5090.1
80°	332.8	348.9	388.6	533.5	723.5	552.8	470.2	962.8	1515.7	1282.7	1346.1
82.5°	244.7	271.6	328.5	374.6	517.4	381.1	286.6	486.3	576.4	495.9	500.2
85°	139.5	157.8	198.6	268.4	330.6	232.9	164.2	215.8	268.4	220.0	196.4
87.5°	49.4	64.4	69.8	105.2	143.8	96.6	63.3	62.3	88.0	65.5	54.7
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: P882737

CATALOG NUMBER: NAV-SB2D-730-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8	2965.8
2.5°	2987.3	2981.9	2960.5	2931.5	2901.4	2872.4	2862.8	2842.4	2828.4	2820.9	2829.5
5°	3047.4	3030.2	2979.8	2915.4	2847.7	2774.8	2723.2	2676.0	2641.7	2609.5	2622.3
7.5°	3133.3	3103.2	3016.3	2903.6	2783.3	2662.1	2571.9	2503.2	2457.0	2427.0	2433.4
10°	3233.1	3186.9	3053.8	2885.3	2699.6	2525.7	2419.5	2360.4	2331.4	2315.3	2319.6
12.5°	3348.0	3282.5	3092.5	2843.5	2571.9	2373.3	2300.3	2283.1	2284.2	2285.3	2287.4
15°	3489.6	3398.4	3123.6	2752.2	2405.5	2256.3	2243.4	2271.3	2300.3	2314.3	2313.2
17.5°	3649.6	3520.8	3129.0	2601.9	2242.3	2181.2	2222.0	2282.1	2326.1	2345.4	2349.7
20°	3821.3	3645.3	3090.3	2389.4	2108.2	2120.0	2193.0	2270.3	2318.6	2343.2	2349.7
22.5°	4017.8	3778.4	2998.0	2166.1	1998.7	2053.4	2139.3	2214.4	2264.9	2289.6	2296.0
25°	4242.1	3927.6	2853.1	1978.3	1904.2	1978.3	2064.2	2126.4	2167.2	2189.8	2196.2
27.5°	4491.1	4083.2	2659.9	1829.1	1821.6	1901.0	1971.8	2020.2	2041.6	2058.8	2065.2
30°	4741.2	4224.9	2425.9	1716.4	1749.7	1824.8	1875.2	1896.7	1903.2	1906.4	1913.9
32.5°	5011.7	4347.3	2180.1	1623.0	1681.0	1750.7	1780.8	1790.4	1760.4	1740.0	1746.4
35°	5339.1	4478.3	1939.6	1548.9	1613.3	1673.4	1683.1	1674.5	1639.1	1597.2	1599.4
37.5°	5743.8	4641.4	1747.5	1496.3	1550.0	1589.7	1577.9	1575.8	1579.0	1529.6	1532.8
40°	6239.7	4853.9	1606.9	1455.5	1498.5	1507.1	1473.8	1492.0	1508.1	1433.0	1435.1
42.5°	6790.4	5110.5	1517.8	1427.6	1455.5	1435.1	1383.6	1404.0	1401.9	1303.1	1302.0
45°	7351.8	5389.6	1486.7	1407.2	1415.8	1375.0	1318.1	1323.5	1278.4	1189.3	1192.6
47.5°	7909.9	5689.1	1506.0	1390.1	1366.4	1320.3	1276.3	1252.7	1186.1	1119.6	1119.6
50°	8457.4	6003.6	1576.8	1355.7	1298.8	1272.0	1239.8	1197.9	1127.1	1070.2	1065.9
52.5°	8965.1	6320.2	1656.3	1298.8	1214.0	1230.1	1209.7	1161.4	1091.7	1033.7	1034.8
55°	9446.0	6636.9	1687.4	1220.5	1134.6	1193.6	1181.8	1092.7	1009.0	961.8	957.5
57.5°	9969.8	7017.9	1653.0	1120.6	1070.2	1151.8	1106.7	1007.9	959.6	924.2	921.0
60°	10695.4	7615.8	1579.0	997.2	1009.0	1089.5	1012.2	971.4	918.8	879.1	877.0
62.5°	11900.9	8731.1	1459.8	874.8	937.1	997.2	967.1	926.4	872.7	834.0	834.0
65°	13682.7	10281.1	1235.5	779.3	856.6	907.0	918.8	878.0	822.2	781.4	783.6
67.5°	15185.5	11253.6	934.9	699.9	773.9	834.0	867.3	827.6	768.6	728.8	729.9
70°	15102.8	10547.3	713.8	621.5	700.9	762.1	805.1	773.9	710.6	673.0	676.2
72.5°	13414.4	8823.4	577.5	542.1	626.9	687.0	738.5	714.9	650.5	614.0	614.0
75°	9855.0	6263.3	461.6	461.6	534.6	608.6	665.5	650.5	591.4	565.7	558.2
77.5°	4154.1	2627.7	361.7	383.2	444.4	522.7	593.6	599.0	547.4	579.6	526.0
80°	1104.5	724.5	275.9	301.6	348.9	431.5	516.3	514.2	458.3	428.3	398.2
82.5°	420.8	285.5	196.4	212.5	252.3	330.6	409.0	421.8	366.0	316.7	316.7
85°	162.1	122.4	121.3	127.7	147.1	219.0	309.1	319.9	275.9	234.0	241.5
87.5°	41.9	36.5	45.1	42.9	67.6	117.0	177.1	183.6	168.5	97.7	139.5
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)