

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: P884786

Luminaire Tested: **NAV-SB5D-735-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884786
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37706 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

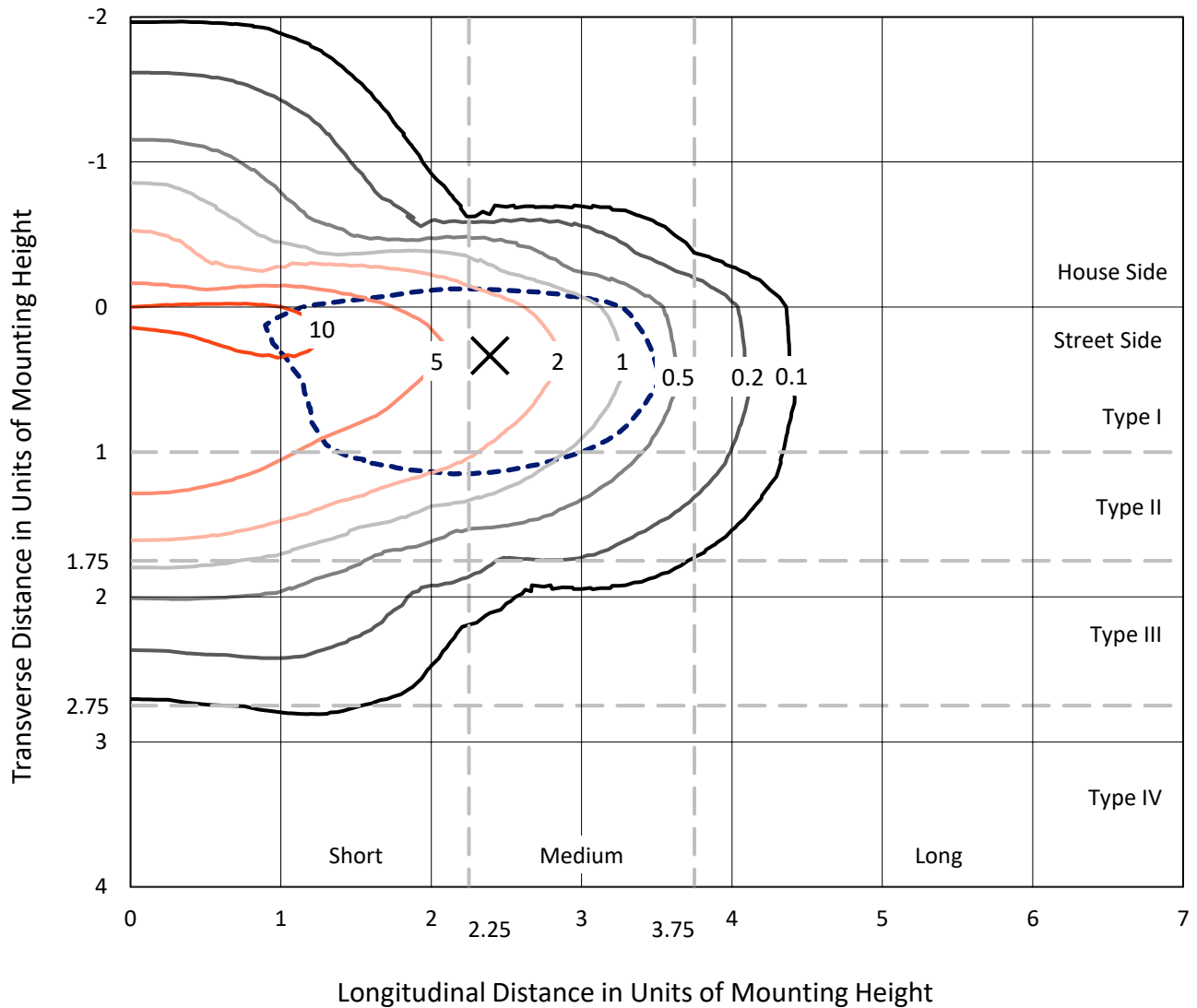
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

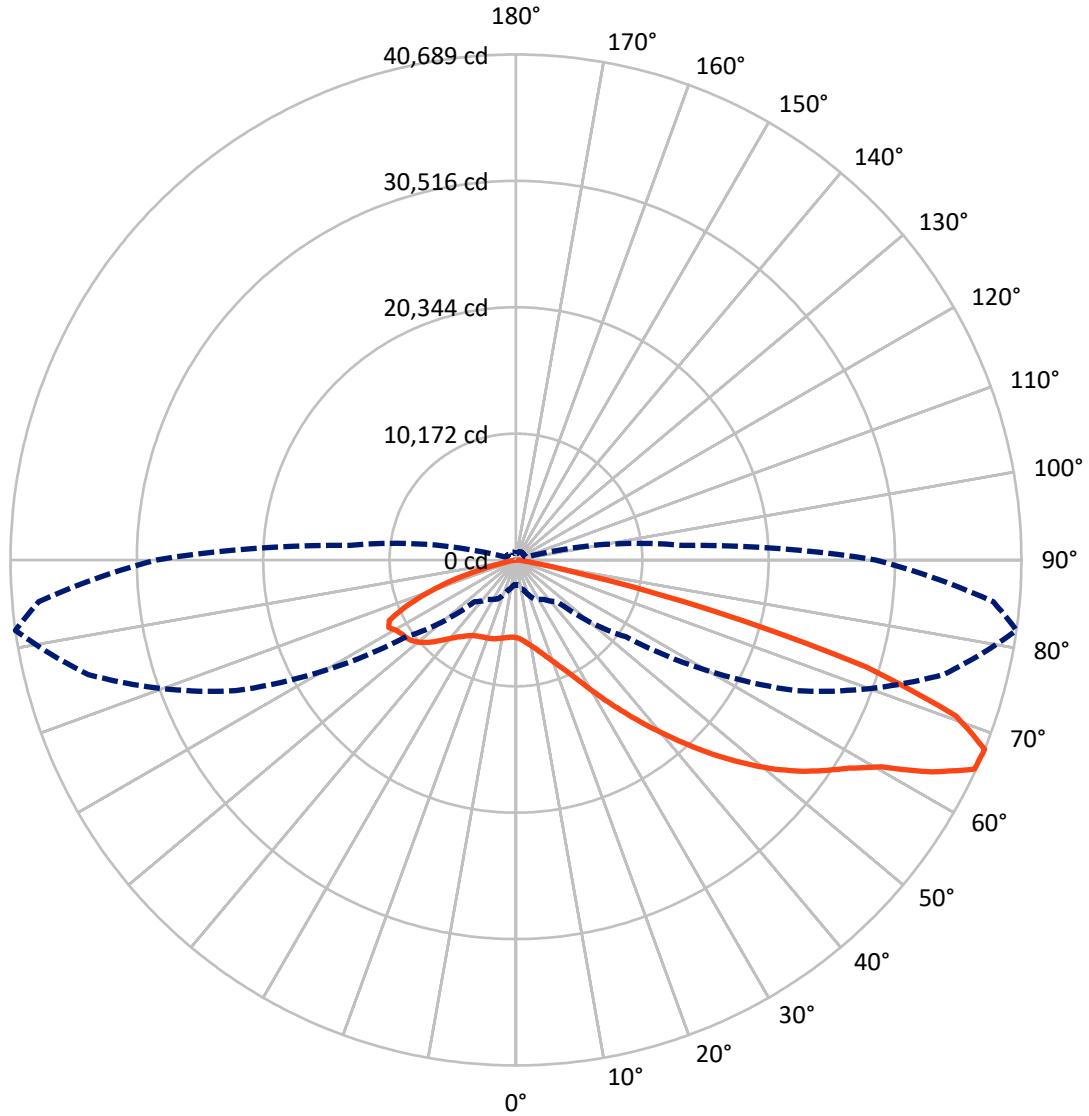
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6830.1	0.0	6830.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	30875.9	0.0	30875.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	37706.0	0.0	37706.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	556.5	1.5
10°-20°	1446.2	3.8
20°-30°	2316.3	6.1
30°-40°	4096.0	10.9
40°-50°	7176.6	19.0
50°-60°	9571.5	25.4
60°-70°	8910.6	23.6
70°-80°	3419.9	9.1
80°-90°	212.4	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°	37706.0	100.0
0°-180°	37706.0	100.0

Coefficient of Utilization



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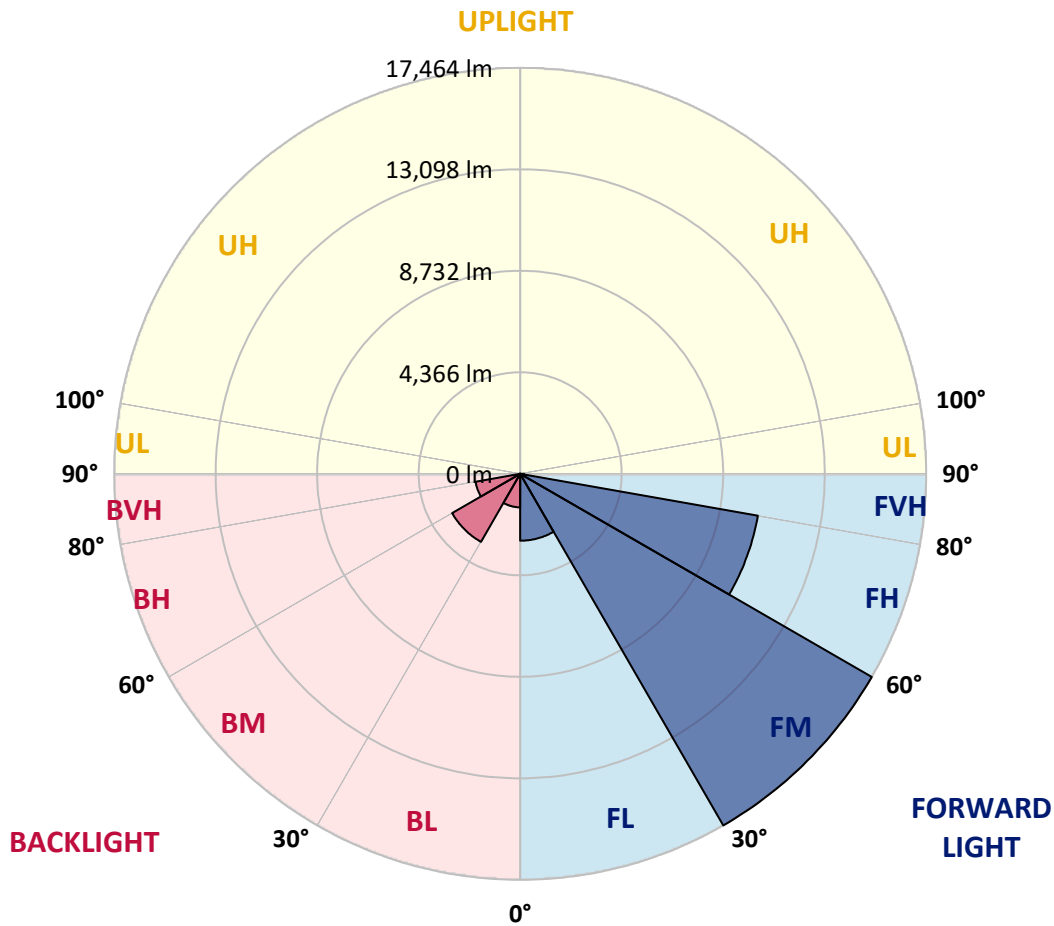
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2876.5	7.6			
FM (30°-60°)	17463.9	46.3			
FH (60°-80°)	10381.0	27.5			G4/12000
FVH (80°-90°)	154.4	0.4			G2/225
BL (0°-30°)	1442.5	3.8	B3/2500		
BM (30°-60°)	3380.2	9.0	B3/5000		
BH (60°-80°)	1949.4	5.2	B3/2500		G3/2500
BVH (80°-90°)	58.0	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°	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6
2.5°	6602.2	6640.2	6618.5	6607.7	6588.7	6561.5	6539.8	6471.9	6401.3	6355.2	6338.9
5°	6735.3	6773.3	6770.6	6781.4	6795.0	6803.1	6797.7	6721.7	6621.2	6542.5	6496.4
7.5°	6621.2	6664.7	6700.0	6754.3	6849.3	6949.7	6998.6	6982.3	6879.1	6770.6	6713.5
10°	6298.2	6344.3	6428.5	6556.1	6757.0	6974.2	7156.0	7240.2	7175.0	7055.6	6976.9
12.5°	5706.4	5752.5	5918.1	6195.0	6531.7	6909.0	7256.5	7481.8	7498.1	7378.7	7286.4
15°	5041.3	5087.4	5263.9	5611.4	6124.4	6729.8	7310.8	7737.0	7880.9	7777.7	7666.4
17.5°	4628.6	4669.3	4802.4	5082.0	5616.8	6371.5	7291.8	8008.5	8337.0	8255.5	8122.5
20°	4503.7	4539.0	4601.5	4796.9	5242.2	5999.6	7166.9	8263.7	8828.3	8782.2	8632.9
22.5°	4636.8	4669.3	4688.3	4775.2	5054.8	5755.2	7009.4	8524.3	9398.4	9403.8	9222.0
25°	4943.5	4976.1	4954.4	5008.7	5130.9	5679.2	6949.7	8831.0	10115.1	10174.8	9968.5
27.5°	5448.5	5451.2	5399.6	5396.9	5415.9	5793.2	7012.2	9159.5	11019.1	11130.4	10875.2
30°	6461.1	6420.4	6222.2	6007.7	5910.0	6135.3	7185.9	9547.7	12086.0	12284.2	11963.8
32.5°	8022.0	7962.3	7598.5	7085.5	6569.7	6686.4	7498.1	9990.2	13247.9	13606.3	13215.3
35°	9716.0	9699.8	9319.7	8556.8	7655.6	7471.0	8005.8	10571.2	14515.7	15085.8	14621.6
37.5°	11290.6	11282.4	11065.3	10166.7	9069.9	8565.0	8820.2	11331.3	15873.1	16698.3	16150.0
40°	12729.4	12753.8	12536.7	11733.1	10628.2	9968.5	9927.8	12270.6	17382.5	18454.8	17803.2
42.5°	13972.7	13999.9	13780.0	13185.5	12167.4	11521.3	11287.9	13421.7	18856.6	20341.5	19570.5
45°	14817.0	14985.3	14952.8	14477.7	13747.4	13076.9	12922.1	14865.9	20537.0	22342.3	21438.3
47.5°	15055.9	15210.7	15455.0	15520.1	15074.9	14415.2	14599.9	16606.0	22236.4	24345.8	23316.9
50°	14466.8	14610.7	15118.4	15794.3	16103.8	15900.2	16231.4	18471.1	23976.6	26343.8	25160.2
52.5°	13304.9	13451.5	14092.2	15161.8	16424.2	17064.8	17868.4	20308.9	25662.4	28236.0	26905.8
55°	11624.5	11779.2	12601.8	13812.6	15813.3	17545.3	19233.9	22144.1	27207.1	29938.1	28480.3
57.5°	9338.7	9452.7	10307.9	12001.8	14276.8	17067.5	20241.1	24147.6	28662.2	31610.4	30041.3
60°	6086.4	6186.9	7180.5	9069.9	11730.4	15471.3	20442.0	26381.8	30595.1	33784.9	32145.2
62.5°	4047.7	4115.5	4704.6	6091.9	8260.9	12406.3	19266.5	28165.4	33429.3	37569.2	35753.1
65°	2777.2	2845.0	3434.1	4400.6	5337.2	8206.6	15886.6	27929.2	35997.4	40574.4	38427.1
67.5°	1981.8	2038.8	2538.3	3450.4	3863.1	4767.1	10769.4	24910.4	35628.2	40688.5	38571.0
70°	1419.8	1452.4	1865.0	2687.6	3070.4	2864.0	5988.7	19052.0	31195.0	37572.0	35633.6
72.5°	993.6	1004.5	1294.9	2046.9	2473.1	2090.3	2850.5	12702.3	23593.8	29490.2	27625.2
75°	673.3	686.8	871.4	1501.2	1984.5	1596.3	1509.4	6811.3	13850.6	16323.7	14632.4
77.5°	412.6	418.1	562.0	1026.2	1485.0	1216.2	971.9	2885.8	5358.9	5261.2	4484.7
80°	233.5	233.5	358.3	638.0	1012.6	784.6	681.4	1227.1	1696.7	1490.4	1313.9
82.5°	130.3	133.0	260.6	396.4	670.5	464.2	374.6	567.4	733.0	648.8	564.7
85°	54.3	59.7	160.2	187.3	320.3	230.8	152.0	238.9	271.5	241.6	176.5
87.5°	5.4	8.1	48.9	35.3	38.0	46.2	21.7	46.2	38.0	38.0	27.1
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°	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6	6246.6
2.5°	6287.3	6246.6	6143.4	6024.0	5866.5	5790.5	5687.4	5616.8	5557.1	5562.5	5508.2
5°	6409.5	6306.3	6075.6	5787.8	5429.5	5174.3	4902.8	4715.5	4563.5	4530.9	4457.6
7.5°	6577.8	6414.9	6010.4	5491.9	4886.5	4427.7	4017.8	3754.5	3567.2	3507.4	3447.7
10°	6795.0	6558.8	5926.3	5120.0	4248.6	3664.9	3225.1	3018.8	2891.2	2847.8	2815.2
12.5°	7047.5	6724.4	5815.0	4666.6	3591.6	3029.6	2750.0	2646.9	2606.1	2592.6	2584.4
15°	7365.1	6930.7	5646.7	4129.1	3035.1	2641.4	2522.0	2508.4	2513.8	2508.4	2505.7
17.5°	7742.4	7156.0	5372.5	3575.3	2660.4	2443.3	2399.8	2410.7	2424.3	2421.5	2416.1
20°	8155.1	7378.7	5022.3	3083.9	2405.3	2302.1	2277.7	2288.5	2299.4	2294.0	2291.2
22.5°	8624.7	7617.5	4634.1	2701.2	2234.2	2171.8	2144.6	2147.4	2147.4	2136.5	2131.1
25°	9186.7	7880.9	4226.8	2429.7	2103.9	2055.1	2022.5	2011.6	1995.3	1962.8	1957.3
27.5°	9857.2	8160.5	3835.9	2239.7	2000.8	1954.6	1916.6	1889.5	1848.7	1794.4	1789.0
30°	10611.9	8499.8	3504.7	2120.2	1919.3	1873.2	1829.7	1789.0	1729.3	1661.4	1656.0
32.5°	11499.6	8863.6	3263.1	2041.5	1846.0	1797.2	1745.6	1696.7	1631.6	1563.7	1566.4
35°	12558.4	9303.4	3121.9	1987.2	1789.0	1723.9	1666.8	1612.6	1563.7	1504.0	1498.5
37.5°	13706.7	9770.3	3078.5	1960.0	1751.0	1650.6	1585.4	1547.4	1542.0	1506.7	1504.0
40°	14963.6	10324.1	3111.1	1943.8	1710.3	1580.0	1509.4	1501.2	1514.8	1452.4	1455.1
42.5°	16293.8	10981.1	3165.4	1924.7	1653.3	1509.4	1441.5	1441.5	1430.7	1343.8	1343.8
45°	17732.7	11738.5	3219.7	1878.6	1585.4	1438.8	1387.2	1368.2	1322.1	1237.9	1235.2
47.5°	19182.3	12509.5	3260.4	1794.4	1504.0	1379.1	1332.9	1289.5	1221.6	1145.6	1142.9
50°	20558.7	13201.8	3217.0	1669.6	1411.7	1322.1	1273.2	1213.5	1140.2	1088.6	1080.5
52.5°	21788.5	13801.7	3032.4	1523.0	1313.9	1262.4	1218.9	1156.5	1096.8	1042.5	1037.0
55°	22858.1	14287.7	2706.6	1384.5	1227.1	1210.8	1167.3	1088.6	1007.2	961.0	955.6
57.5°	23884.2	14656.9	2299.4	1270.5	1148.3	1153.8	1088.6	1018.0	942.0	893.1	887.7
60°	25249.8	15150.9	1886.7	1164.6	1064.2	1080.5	1009.9	958.3	863.3	800.8	792.7
62.5°	27432.4	15919.2	1498.5	1034.3	966.4	971.9	942.0	879.6	765.6	692.3	686.8
65°	29164.4	15636.9	1180.9	893.1	855.1	863.3	863.3	795.4	673.3	589.1	581.0
67.5°	28969.0	13389.1	942.0	754.7	749.3	754.7	773.7	716.7	597.2	529.4	518.5
70°	26685.9	10649.9	754.7	627.1	651.5	638.0	692.3	654.3	537.5	469.6	461.5
72.5°	21774.9	7671.8	575.5	518.5	499.5	521.2	624.4	589.1	447.9	371.9	363.8
75°	12724.0	4093.8	428.9	409.9	361.1	434.4	553.8	502.2	342.1	274.2	266.0
77.5°	4142.7	1428.0	314.9	301.3	268.8	350.2	472.4	423.5	279.6	217.2	209.0
80°	1110.3	431.6	214.5	198.2	173.7	260.6	374.6	336.6	200.9	141.2	138.5
82.5°	445.2	181.9	124.9	111.3	95.0	179.2	295.9	271.5	149.3	89.6	89.6
85°	143.9	59.7	46.2	35.3	43.4	111.3	176.5	184.6	105.9	46.2	35.3
87.5°	19.0	8.1	8.1	10.9	8.1	19.0	54.3	51.6	29.9	5.4	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)