

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: P966154

Luminaire Tested: **NAV-SB4B-735-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966154
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-735-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18141.5 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 147
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

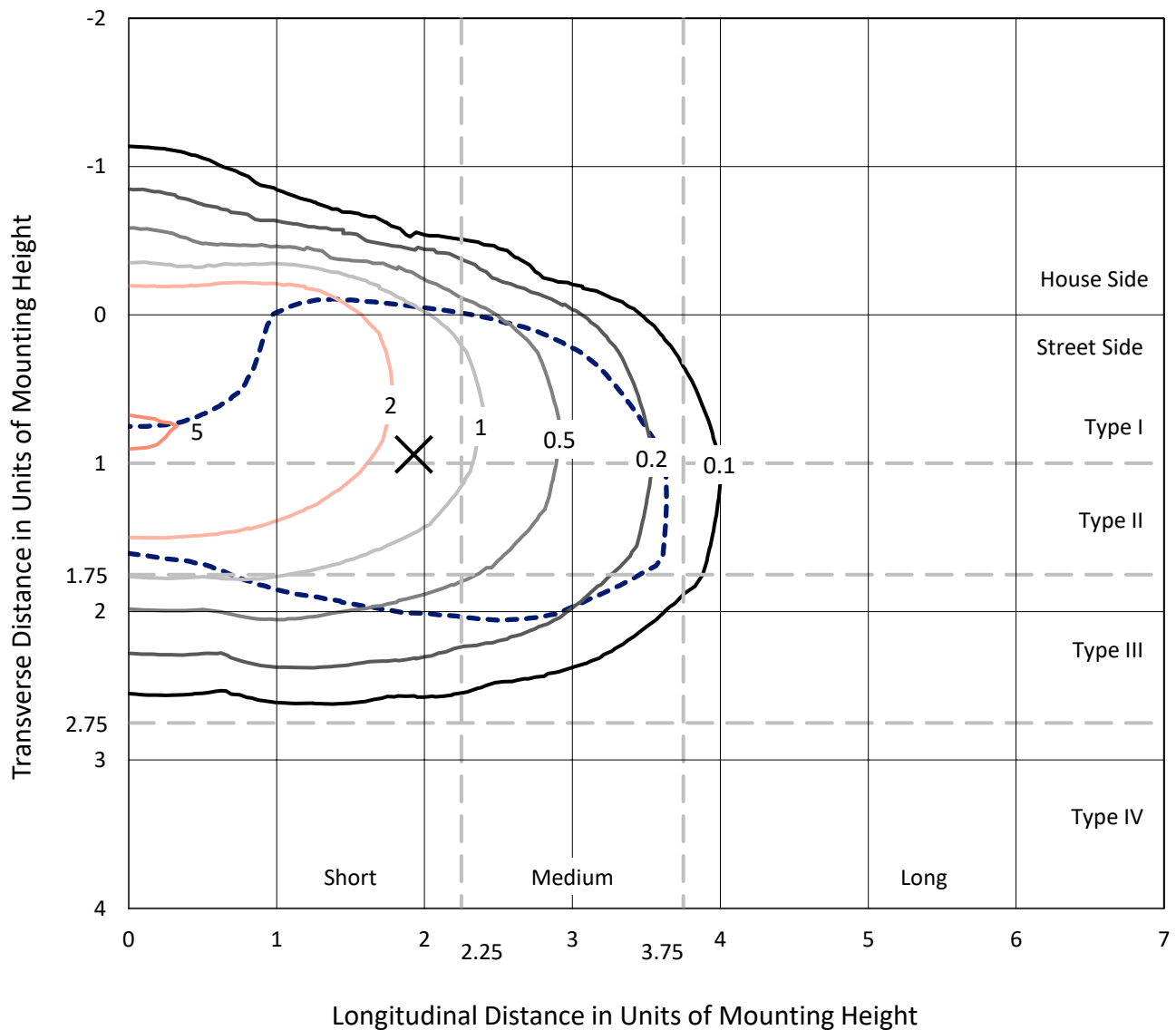


REPORT NUMBER: P966154

CATALOG NUMBER: NAV-SB4B-735-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

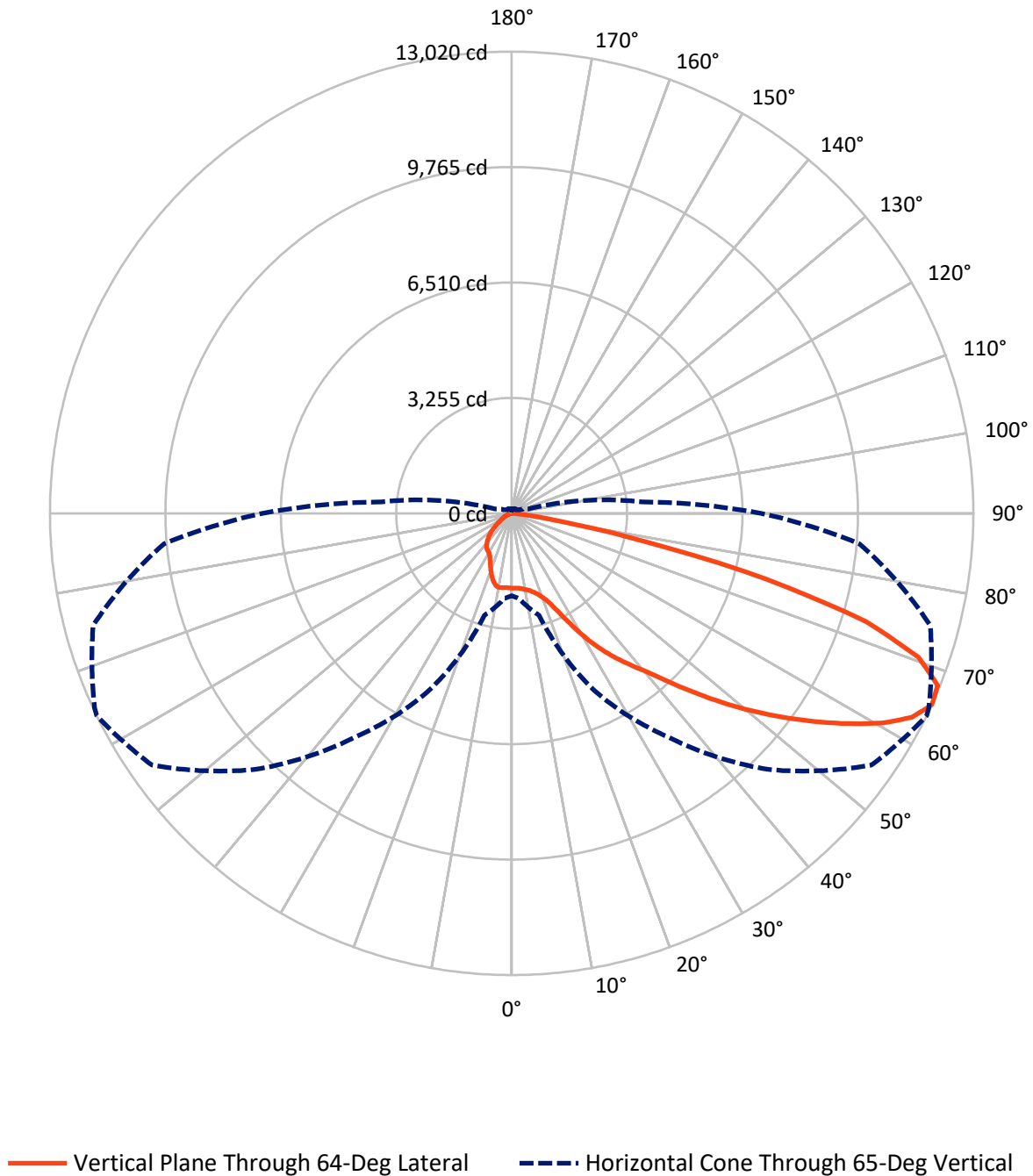


Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
Type III - Short - N/A

REPORT NUMBER: P966154

CATALOG NUMBER: NAV-SB4B-735-U-T3-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2426.1	0.0	2426.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	15715.4	0.0	15715.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	18141.5	0.0	18141.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	1.1
10°-20°	528.0	2.9
20°-30°	1000.5	5.5
30°-40°	2024.6	11.2
40°-50°	3448.9	19.0
50°-60°	4690.3	25.9
60°-70°	4404.4	24.3
70°-80°	1764.6	9.7
80°-90°	85.5	0.5
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°	18141.5	100.0
0°-180°	18141.5	100.0

Coefficient of Utilization



REPORT NUMBER: P966154

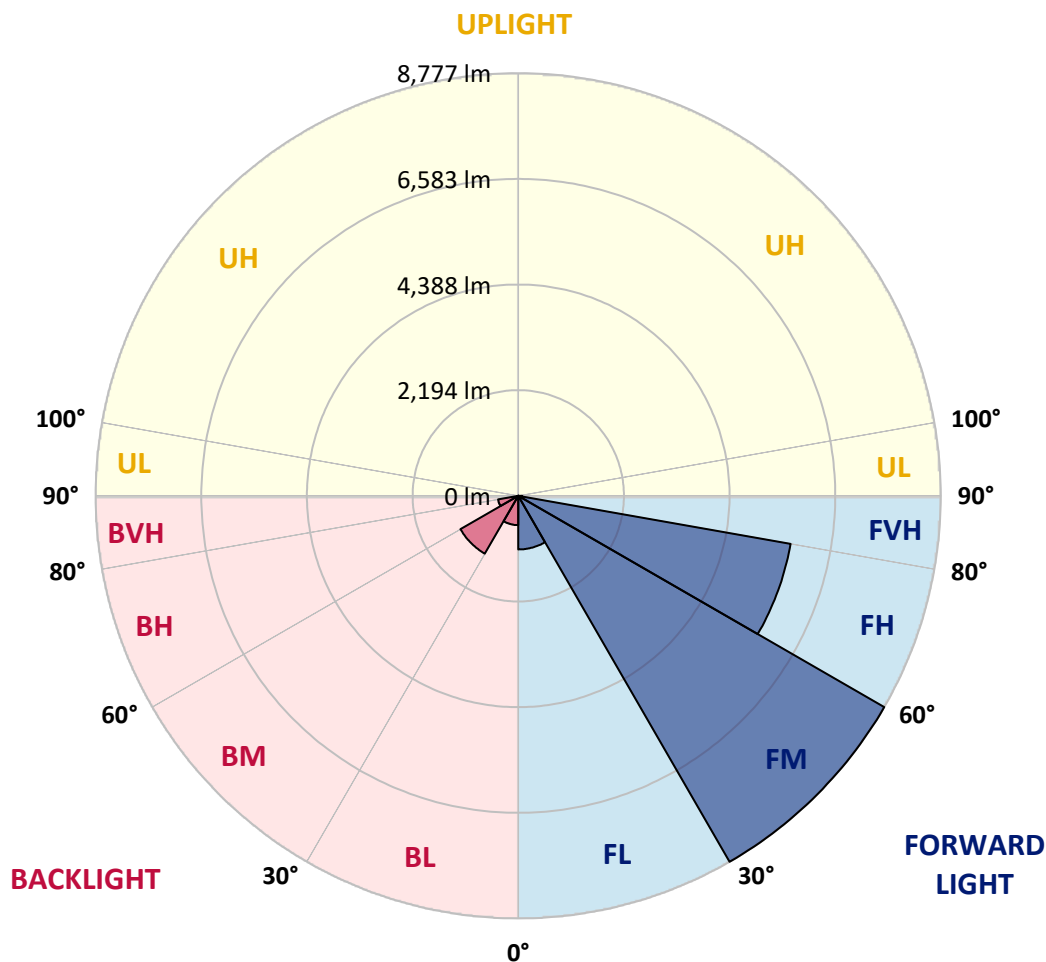
CATALOG NUMBER: NAV-SB4B-735-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1114.1	6.1			
FM	(30°-60°)	8776.8	48.4			
FH	(60°-80°)	5743.2	31.7			G3/7500
FVH	(80°-90°)	81.3	0.4			G1/100
BL	(0°-30°)	609.1	3.4	B2/1000		
BM	(30°-60°)	1387.0	7.6	B2/2500		
BH	(60°-80°)	425.8	2.3	B1/500		G1/500
BVH	(80°-90°)	4.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short



REPORT NUMBER: P966154

CATALOG NUMBER: NAV-SB4B-735-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1
2.5°	2102.8	2117.3	2113.7	2110.1	2108.8	2111.3	2112.5	2111.3	2111.3	2111.3	2112.5
5°	2062.6	2074.8	2074.8	2083.3	2095.4	2110.1	2121.0	2123.4	2125.8	2129.5	2128.3
7.5°	1986.0	1995.7	2003.1	2031.0	2061.4	2100.3	2133.1	2150.1	2152.6	2166.0	2170.8
10°	1933.7	1945.9	1958.1	1987.2	2031.0	2089.4	2145.3	2186.6	2192.8	2224.4	2238.9
12.5°	1931.3	1943.4	1959.3	1990.9	2041.9	2103.9	2172.1	2231.6	2242.6	2288.8	2319.3
15°	1956.8	1971.4	1986.0	2024.9	2079.6	2155.1	2228.0	2302.1	2313.1	2378.8	2411.6
17.5°	2009.1	2028.6	2039.5	2078.4	2136.8	2220.7	2316.8	2401.9	2411.6	2488.3	2529.6
20°	2112.5	2135.6	2139.3	2170.8	2228.0	2318.0	2432.3	2538.1	2550.3	2637.8	2684.1
22.5°	2326.5	2359.3	2330.1	2346.0	2397.1	2487.1	2611.1	2744.8	2761.9	2861.6	2903.0
25°	2703.5	2749.8	2674.3	2647.6	2669.5	2763.1	2918.8	3087.8	3107.3	3187.5	3208.2
27.5°	3444.2	3384.6	3270.3	3158.3	3092.7	3146.2	3321.3	3530.5	3554.8	3632.7	3608.3
30°	4257.7	4205.5	4051.0	3803.0	3647.3	3638.7	3800.5	4034.0	4062.0	4136.2	4062.0
32.5°	5072.6	5022.7	4854.9	4549.7	4279.7	4145.9	4257.7	4516.9	4531.4	4578.9	4469.4
35°	5874.1	5823.0	5655.1	5342.6	5010.6	4706.6	4684.7	4976.6	4981.4	5031.3	4868.3
37.5°	6680.3	6637.8	6459.0	6152.6	5825.4	5405.8	5202.7	5411.9	5418.0	5466.6	5297.6
40°	7255.7	7273.9	7151.0	6913.9	6633.0	6174.5	5784.1	5875.3	5838.8	5920.3	5819.3
42.5°	7749.4	7785.9	7678.9	7559.7	7396.7	6993.0	6504.0	6488.2	6429.8	6473.6	6369.0
45°	8176.2	8206.7	8110.6	8082.6	8078.9	7795.6	7290.9	7196.0	7114.5	7106.0	6980.8
47.5°	8333.1	8391.5	8432.9	8526.6	8708.9	8589.7	8104.5	7957.4	7866.2	7799.2	7601.0
50°	8392.7	8454.7	8595.9	8868.3	9300.0	9351.1	8914.4	8749.1	8637.2	8515.6	8223.7
52.5°	8312.4	8423.1	8612.9	9071.4	9697.7	9961.6	9691.6	9546.8	9419.1	9220.9	8787.9
55°	7839.4	7950.1	8338.0	9068.9	9896.0	10389.7	10426.2	10361.7	10218.2	9905.6	9244.1
57.5°	6842.1	7006.3	7620.5	8760.1	9892.3	10758.2	11146.2	11192.4	11031.8	10584.3	9602.8
60°	5460.6	5683.1	6432.3	8075.4	9587.0	10957.7	11777.4	12008.4	11838.1	11253.2	9893.5
62.5°	3810.2	4068.0	4777.1	7002.7	8888.9	10814.2	12238.2	12665.1	12536.2	11851.5	10005.3
65°	2324.1	2406.8	2978.3	5510.4	7702.0	10213.3	12380.6	13020.3	12977.6	12217.6	9840.0
67.5°	1548.2	1617.4	1781.7	3778.7	5978.6	9013.0	12040.0	12958.3	12970.3	12157.9	9234.3
70°	932.7	992.4	1099.4	2197.6	3874.7	7134.0	10985.6	12167.7	12238.2	11361.4	8086.2
72.5°	384.3	424.5	521.7	996.0	2006.6	4527.7	8747.9	10446.8	10611.0	9553.0	6206.1
75°	217.7	238.4	306.5	499.9	870.7	2110.1	5298.8	7416.2	7658.2	6584.3	3733.7
77.5°	144.7	154.5	198.2	323.5	490.2	720.0	2264.5	3863.7	4325.9	3596.2	1616.3
80°	97.3	105.8	136.2	216.5	318.7	308.9	721.2	1431.4	1761.1	1235.6	394.0
82.5°	65.7	66.9	97.3	142.3	201.9	149.5	212.8	445.2	559.4	357.5	149.5
85°	37.7	36.5	71.8	82.7	90.0	62.0	64.5	133.8	175.2	150.8	85.2
87.5°	4.8	7.3	28.0	21.9	12.2	13.4	13.4	23.1	34.0	36.5	18.2
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: P966154

CATALOG NUMBER: NAV-SB4B-735-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1	2110.1
2.5°	2112.5	2111.3	2107.6	2103.9	2095.4	2090.6	2093.0	2090.6	2089.4	2090.6	2095.4
5°	2128.3	2124.6	2114.9	2102.8	2085.7	2065.1	2051.6	2032.2	2013.9	2003.1	2005.4
7.5°	2170.8	2167.2	2153.8	2119.8	2065.1	1978.7	1899.6	1830.3	1778.1	1747.6	1748.9
10°	2238.9	2232.9	2212.2	2136.8	1993.3	1804.8	1647.9	1517.8	1432.6	1392.5	1388.9
12.5°	2319.3	2311.9	2275.4	2121.0	1857.1	1562.8	1346.3	1201.6	1122.5	1087.2	1083.6
15°	2414.1	2404.3	2332.6	2045.6	1658.9	1295.2	1097.0	988.7	937.7	906.0	907.2
17.5°	2532.1	2515.0	2375.1	1932.4	1443.6	1090.9	943.7	862.2	817.2	786.9	784.4
20°	2685.3	2657.3	2409.3	1797.4	1245.4	962.0	840.4	772.2	738.2	711.5	706.6
22.5°	2899.3	2859.2	2450.6	1651.6	1105.5	873.2	763.7	713.9	685.9	655.5	650.7
25°	3164.5	3117.0	2501.6	1516.6	1009.4	796.6	707.8	666.5	633.7	598.4	594.7
27.5°	3535.4	3450.3	2562.5	1405.9	926.7	730.9	656.7	610.5	572.8	543.7	537.5
30°	3948.9	3809.0	2616.0	1339.0	851.3	670.1	589.9	543.7	508.4	487.7	484.0
32.5°	4340.5	4150.7	2651.3	1309.8	783.2	600.8	516.9	467.0	440.2	434.2	437.8
35°	4710.2	4459.7	2647.6	1281.9	722.4	531.5	445.2	394.0	373.4	377.0	377.0
37.5°	5135.9	4789.2	2622.1	1238.1	672.5	468.2	383.0	338.0	319.8	321.0	326.0
40°	5630.8	5169.9	2606.3	1155.4	617.8	409.9	332.0	295.5	282.2	277.3	276.0
42.5°	6158.6	5538.4	2608.6	1061.7	549.7	357.5	296.7	266.3	254.2	250.5	249.3
45°	6688.8	5889.9	2612.3	964.4	478.0	317.4	271.2	245.7	238.4	233.5	233.5
47.5°	7187.5	6189.1	2544.3	859.9	407.4	287.0	250.5	233.5	227.4	221.3	221.3
50°	7652.1	6388.5	2380.0	738.2	351.5	262.7	234.7	222.5	216.5	210.4	210.4
52.5°	8013.2	6420.1	2108.8	612.9	312.5	244.5	225.0	214.0	206.7	200.7	199.5
55°	8173.9	6221.9	1723.3	496.2	282.2	228.7	215.2	204.3	195.8	189.7	188.5
57.5°	8132.5	5804.8	1343.9	398.9	253.0	212.8	203.1	195.8	186.0	176.3	175.2
60°	7929.4	5246.6	1013.1	332.0	226.2	195.8	189.7	183.7	170.3	155.7	153.2
62.5°	7577.9	4544.8	722.4	274.8	197.0	176.3	173.9	169.0	149.5	122.8	120.4
65°	7040.3	3692.3	486.5	228.7	169.0	154.5	155.7	147.2	121.6	91.2	88.8
67.5°	6254.8	2699.8	311.3	187.3	141.0	128.9	130.2	125.3	103.4	77.8	74.2
70°	5253.8	1787.8	203.1	142.3	113.1	99.7	107.0	108.2	87.5	63.2	60.8
72.5°	3851.5	1055.6	142.3	105.8	82.7	69.3	87.5	90.0	70.5	47.5	45.0
75°	2195.1	501.0	107.0	76.6	51.0	48.7	68.1	68.1	48.7	31.6	29.2
77.5°	921.9	209.2	75.4	49.8	29.2	28.0	46.2	42.5	24.3	14.6	14.6
80°	266.3	93.7	40.2	24.3	12.2	11.0	18.2	13.4	6.0	2.5	2.5
82.5°	104.6	41.3	15.8	9.7	4.8	4.8	2.5	0.0	0.0	0.0	0.0
85°	62.0	17.0	7.3	3.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.8	3.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)