

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: P963182

Luminaire Tested: **NAV-SB2D-835-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14649.3 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

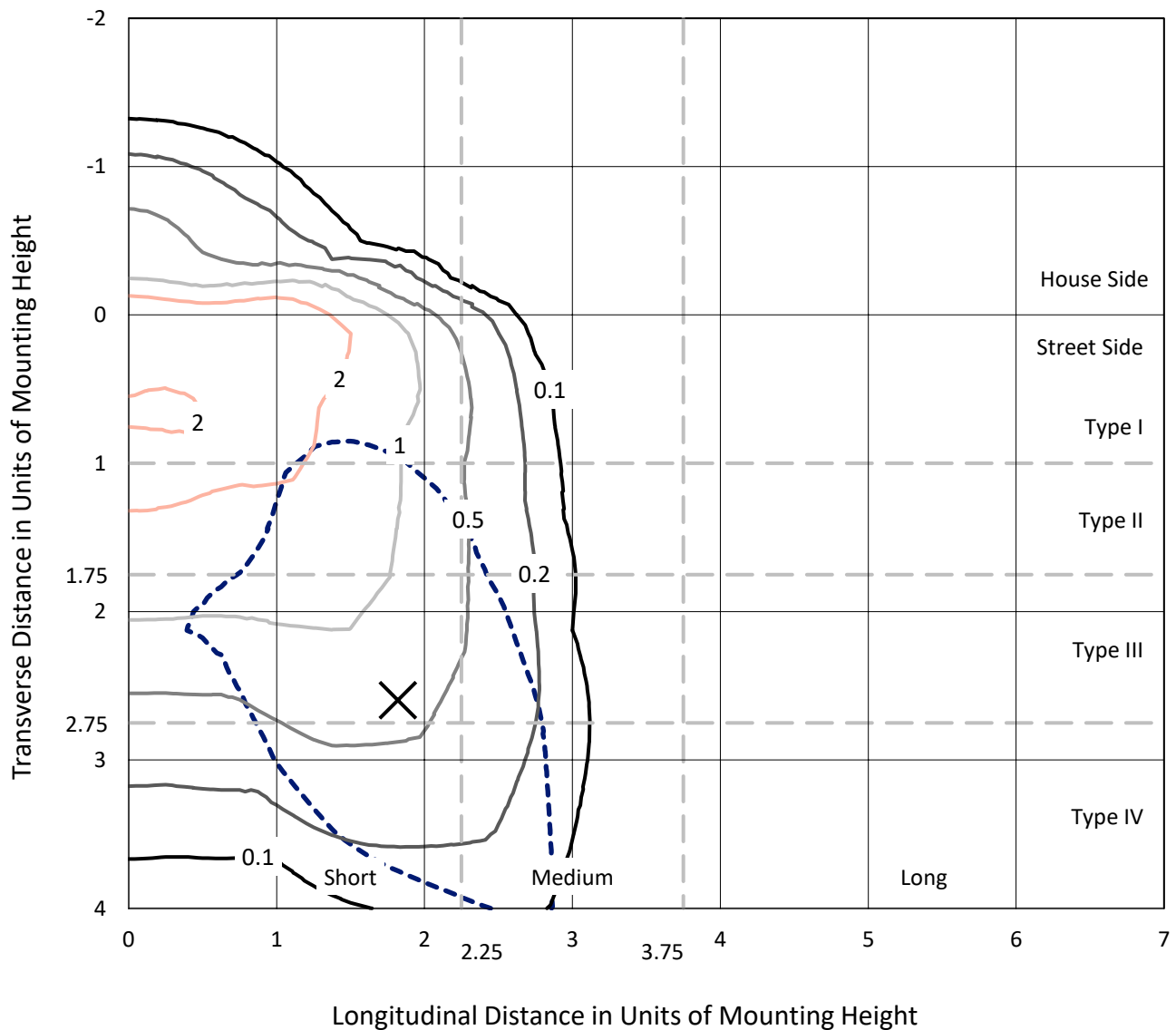
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

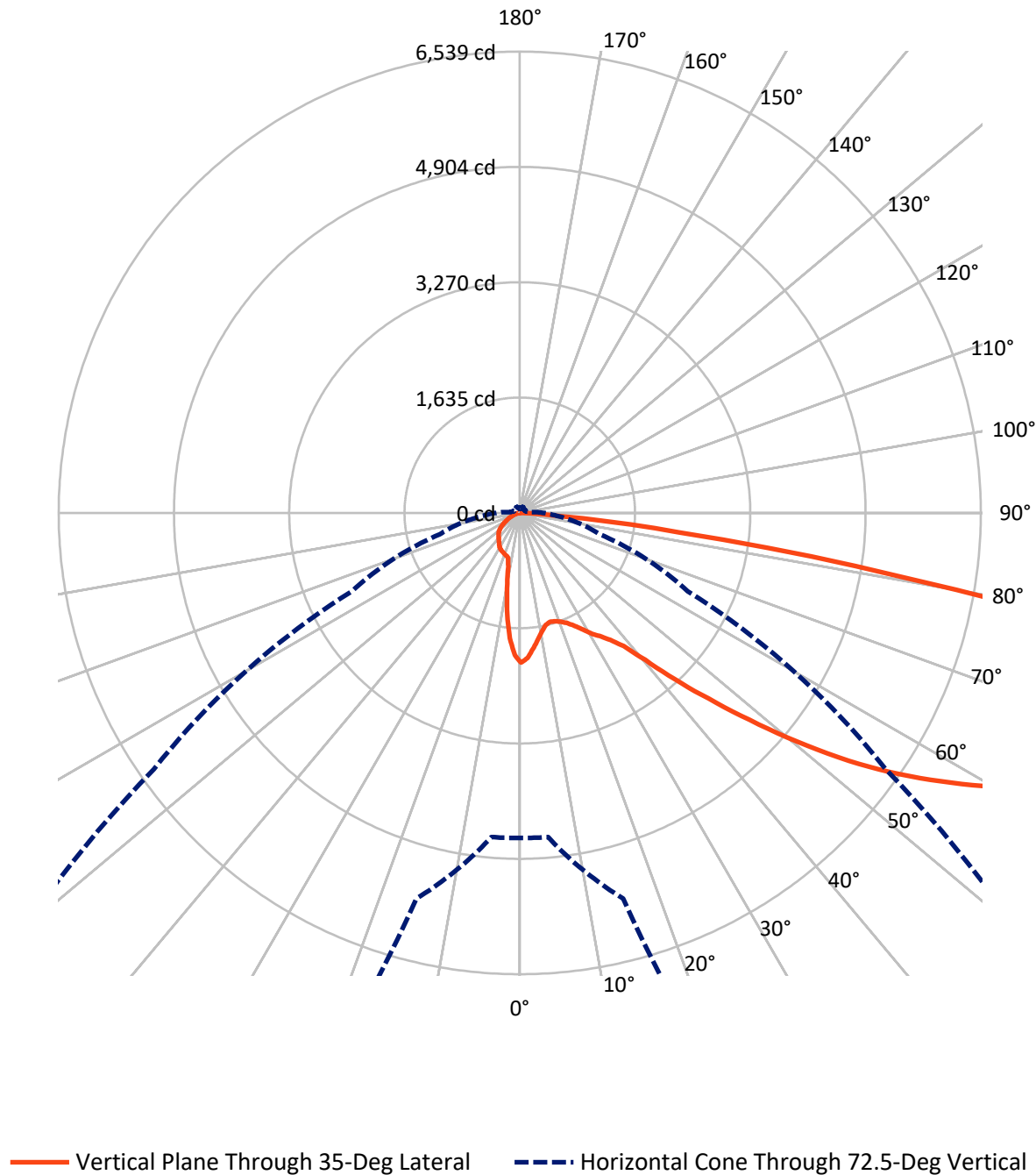
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1648.7	0.0	1648.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	13000.6	0.0	13000.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	14649.3	0.0	14649.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.5	1.2
10°-20°	408.2	2.8
20°-30°	663.0	4.5
30°-40°	1106.3	7.6
40°-50°	2093.1	14.3
50°-60°	3325.9	22.7
60°-70°	4114.3	28.1
70°-80°	2557.5	17.5
80°-90°	206.7	1.4
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°	14649.3	100.0
0°-180°	14649.3	100.0

Coefficient of Utilization



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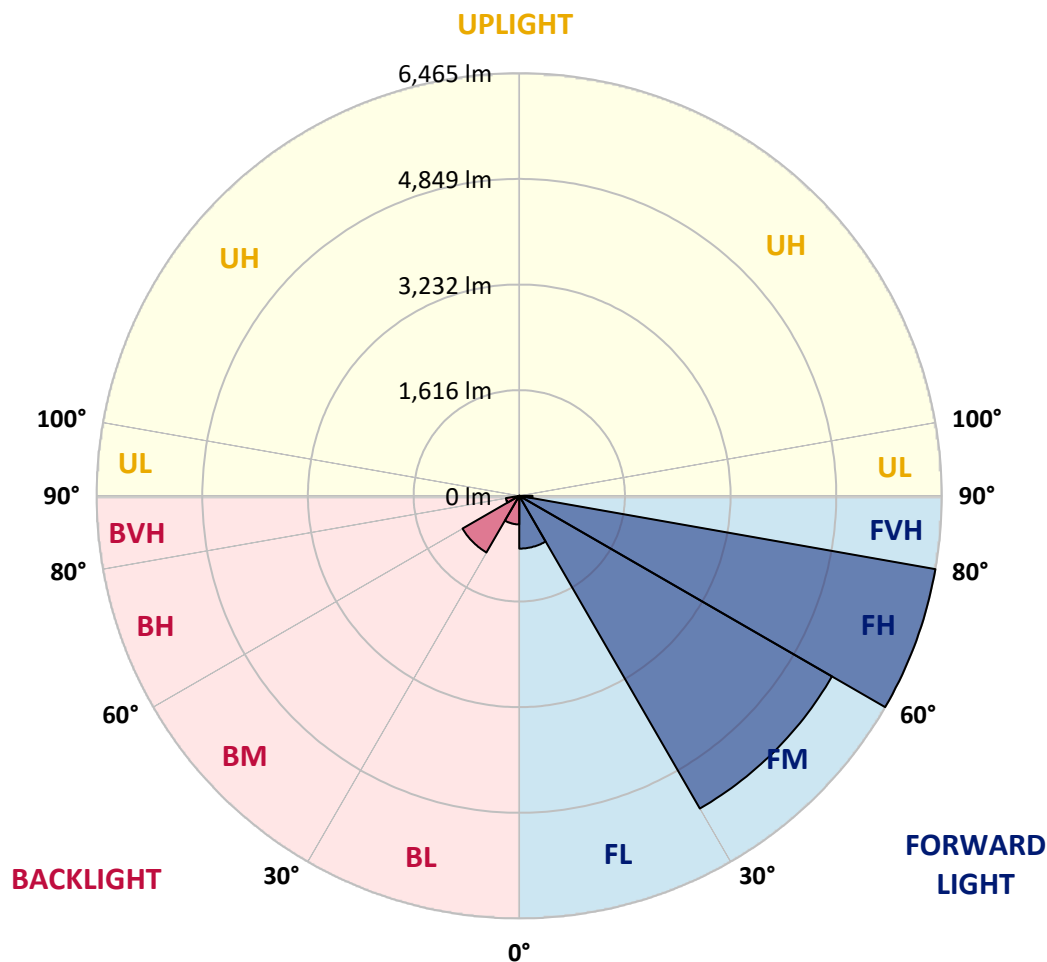
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	807.5	5.5			
FM	(30°-60°)	5524.2	37.7			
FH	(60°-80°)	6464.9	44.1			G3/7500
FVH	(80°-90°)	203.9	1.4			G2/225
BL	(0°-30°)	438.1	3.0	B1/500		
BM	(30°-60°)	1000.9	6.8	B2/2500		
BH	(60°-80°)	206.9	1.4	B1/500		G1/500
BVH	(80°-90°)	2.8	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2
2.5°	2028.7	2045.9	2049.1	2054.5	2054.5	2061.0	2071.6	2086.7	2111.4	2124.2	2132.8
5°	1869.8	1882.7	1898.8	1911.7	1936.4	1939.6	1981.5	2022.3	2079.2	2122.1	2152.2
7.5°	1709.9	1725.0	1746.4	1777.6	1809.7	1819.4	1882.7	1951.4	2041.6	2122.1	2172.6
10°	1597.3	1598.3	1617.7	1648.7	1700.3	1712.1	1789.3	1887.0	1999.8	2109.2	2191.9
12.5°	1533.9	1541.4	1550.0	1573.6	1623.0	1630.5	1713.2	1828.0	1957.9	2101.7	2214.4
15°	1533.9	1539.2	1544.6	1556.5	1596.1	1602.6	1675.6	1790.5	1936.4	2104.9	2250.9
17.5°	1550.0	1558.6	1554.3	1568.2	1610.1	1614.4	1678.7	1779.7	1935.3	2125.3	2306.8
20°	1588.6	1595.1	1586.5	1595.1	1636.9	1645.5	1712.1	1800.1	1953.5	2160.7	2376.5
22.5°	1649.8	1653.0	1632.6	1639.1	1682.0	1692.8	1770.1	1858.0	1997.6	2217.6	2469.8
25°	1727.1	1733.6	1702.4	1709.9	1750.7	1763.6	1852.7	1945.0	2067.3	2296.0	2589.0
27.5°	1816.2	1819.4	1792.5	1791.5	1844.1	1862.3	1952.5	2052.4	2160.7	2394.7	2739.3
30°	1918.2	1927.8	1902.1	1897.8	1964.3	1979.4	2068.4	2184.4	2298.2	2542.9	2952.9
32.5°	1998.6	2006.1	1991.2	2001.9	2069.5	2081.3	2209.1	2371.1	2513.9	2753.3	3243.8
35°	2114.6	2118.9	2084.5	2103.8	2181.1	2211.2	2401.2	2633.0	2785.4	3017.3	3623.8
37.5°	2534.3	2534.3	2388.4	2292.7	2366.8	2393.7	2664.2	2962.6	3120.4	3371.5	4102.6
40°	3115.0	3105.3	2891.7	2696.4	2686.7	2739.3	3038.8	3378.0	3553.0	3796.6	4641.4
42.5°	3734.4	3719.3	3428.4	3235.2	3203.0	3221.3	3471.4	3890.0	4068.1	4315.0	5221.0
45°	4283.9	4279.6	4013.4	3753.7	3695.7	3753.7	4011.2	4489.0	4616.7	4876.4	5799.6
47.5°	4744.4	4744.4	4550.1	4380.5	4350.5	4384.8	4742.3	5153.4	5141.6	5474.3	6363.1
50°	5274.6	5270.3	5085.7	5012.8	5043.9	5092.2	5583.8	5853.3	5684.6	6061.4	6866.5
52.5°	5646.0	5671.8	5608.5	5596.7	5755.6	5839.2	6438.2	6538.1	6170.9	6618.5	7243.3
55°	5940.2	5970.2	6043.2	6125.9	6431.8	6541.2	7265.8	7187.4	6577.7	7101.6	7460.1
57.5°	6356.6	6313.7	6426.4	6589.5	7084.4	7216.4	8067.7	7800.4	6905.1	7493.4	7483.7
60°	6862.2	6868.6	6888.0	7094.0	7736.0	7905.5	8857.6	8380.0	7115.6	7733.8	7221.8
62.5°	7469.8	7479.4	7519.1	7835.8	8610.8	8770.7	9699.2	8854.5	7212.1	7666.2	6545.5
65°	7427.9	7468.7	7912.0	8995.1	9940.8	10098.5	10681.3	9187.2	7066.1	7047.9	5329.4
67.5°	6766.6	6833.3	7575.0	10379.8	11945.8	12121.9	11868.5	9252.7	6436.1	5480.8	3476.7
70°	5899.4	5923.0	6815.0	11624.8	14267.6	14445.7	12931.2	8532.4	4883.9	3057.1	1557.5
72.5°	4607.0	4612.4	5658.9	11913.6	15527.7	15537.4	12097.2	6334.1	2626.6	1174.3	541.0
75°	3291.1	3258.8	3790.1	9661.6	13661.1	13770.6	9069.1	2971.2	1003.6	554.9	269.5
77.5°	1764.6	1800.1	2144.6	5729.7	9437.3	9624.0	4948.4	856.6	511.0	377.8	178.1
80°	545.3	575.3	879.1	2623.4	5345.5	5458.2	1834.4	381.1	356.4	269.5	117.0
82.5°	171.8	178.1	410.0	1102.4	2218.7	2270.3	531.4	215.8	243.6	178.1	68.7
85°	49.4	50.4	182.4	411.1	548.5	559.2	149.2	83.7	139.5	110.6	35.5
87.5°	5.3	17.2	68.7	68.7	48.3	47.3	16.1	18.2	39.7	13.9	6.5
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°	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2	2123.2
2.5°	2127.5	2128.5	2114.6	2091.0	2065.2	2043.7	2016.9	1995.5	1980.4	1976.1	1983.7
5°	2142.5	2135.0	2095.3	2023.4	1937.5	1863.4	1780.7	1715.2	1672.4	1654.1	1660.5
7.5°	2165.0	2143.6	2056.7	1914.9	1750.7	1604.7	1456.6	1341.7	1268.7	1232.3	1237.6
10°	2184.4	2141.4	1992.2	1758.2	1507.1	1286.0	1086.3	947.8	870.5	834.0	835.1
12.5°	2202.6	2140.3	1908.4	1572.6	1232.3	961.8	776.0	707.4	685.9	678.3	676.2
15°	2237.0	2143.6	1803.3	1360.0	958.6	726.7	659.1	657.9	662.3	660.1	659.1
17.5°	2284.2	2146.8	1684.2	1134.6	739.5	640.8	637.6	647.3	653.7	650.5	649.4
20°	2345.4	2159.7	1557.5	911.3	635.5	619.3	626.9	635.5	640.8	635.5	634.4
22.5°	2431.2	2182.2	1419.0	732.1	602.2	606.5	612.9	622.6	627.9	620.4	619.3
25°	2536.5	2217.6	1282.7	636.5	586.1	591.4	601.1	611.8	618.3	610.8	609.7
27.5°	2672.8	2274.5	1157.1	615.1	570.0	573.2	587.1	603.2	611.8	602.2	602.2
30°	2870.3	2368.0	1048.7	624.7	560.3	552.8	572.2	594.7	604.3	595.7	594.7
32.5°	3132.2	2500.0	982.2	639.7	556.1	529.2	547.5	576.5	592.6	587.1	587.1
35°	3475.7	2700.7	956.4	656.9	552.8	504.5	517.4	548.5	576.5	581.8	581.8
37.5°	3892.1	2979.8	963.9	664.4	543.1	484.1	490.6	517.4	553.9	571.0	575.3
40°	4365.5	3305.0	1006.9	656.9	532.4	466.9	468.0	488.4	520.6	546.3	554.9
42.5°	4853.9	3685.0	1086.3	629.0	522.8	451.9	448.6	462.6	484.1	502.4	509.8
45°	5318.6	4075.7	1164.6	590.4	511.0	436.9	429.4	434.7	439.0	446.5	450.8
47.5°	5724.4	4350.5	1142.1	554.9	494.9	419.7	406.8	404.7	391.8	390.7	389.6
50°	6004.6	4410.6	1014.3	519.6	471.2	400.4	380.0	367.1	344.6	333.8	334.9
52.5°	6093.6	4173.4	828.6	484.1	432.6	374.6	345.6	325.2	297.4	287.7	286.6
55°	5975.5	3708.6	662.3	441.2	378.9	340.3	308.1	281.3	258.7	246.9	246.9
57.5°	5686.8	3117.1	523.8	390.7	322.1	301.7	269.5	242.6	223.2	211.5	209.3
60°	5208.1	2475.3	414.3	330.6	274.8	259.7	226.5	209.3	192.2	178.1	175.0
62.5°	4481.4	1766.8	325.2	261.9	229.7	212.5	193.2	180.3	159.9	140.6	137.4
65°	3497.1	1080.9	251.1	192.2	184.6	176.0	164.2	152.4	127.7	108.4	105.2
67.5°	2205.8	512.0	179.3	144.9	146.0	141.7	136.3	126.7	108.4	91.2	89.1
70°	971.4	247.9	118.1	110.6	108.4	108.4	112.7	109.5	92.4	76.3	73.0
72.5°	330.6	133.1	88.0	83.7	78.3	77.3	94.5	91.2	74.1	59.0	55.9
75°	172.8	89.1	64.4	60.1	47.3	56.9	75.1	70.8	52.6	38.6	35.5
77.5°	112.7	63.3	44.0	38.6	26.9	37.6	55.9	49.4	31.2	19.3	17.2
80°	70.8	41.8	25.7	18.2	12.9	20.4	30.0	21.4	11.8	4.3	3.2
82.5°	37.6	21.4	9.6	6.5	5.3	6.5	7.5	5.3	2.2	0.0	0.0
85°	15.1	7.5	3.2	2.2	1.0	0.0	2.2	1.0	0.0	0.0	0.0
87.5°	5.3	1.0	0.0	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)