

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: P963644

Luminaire Tested: **NAV-SB3A-827-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963644
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-827-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9987.6 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 84.7
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



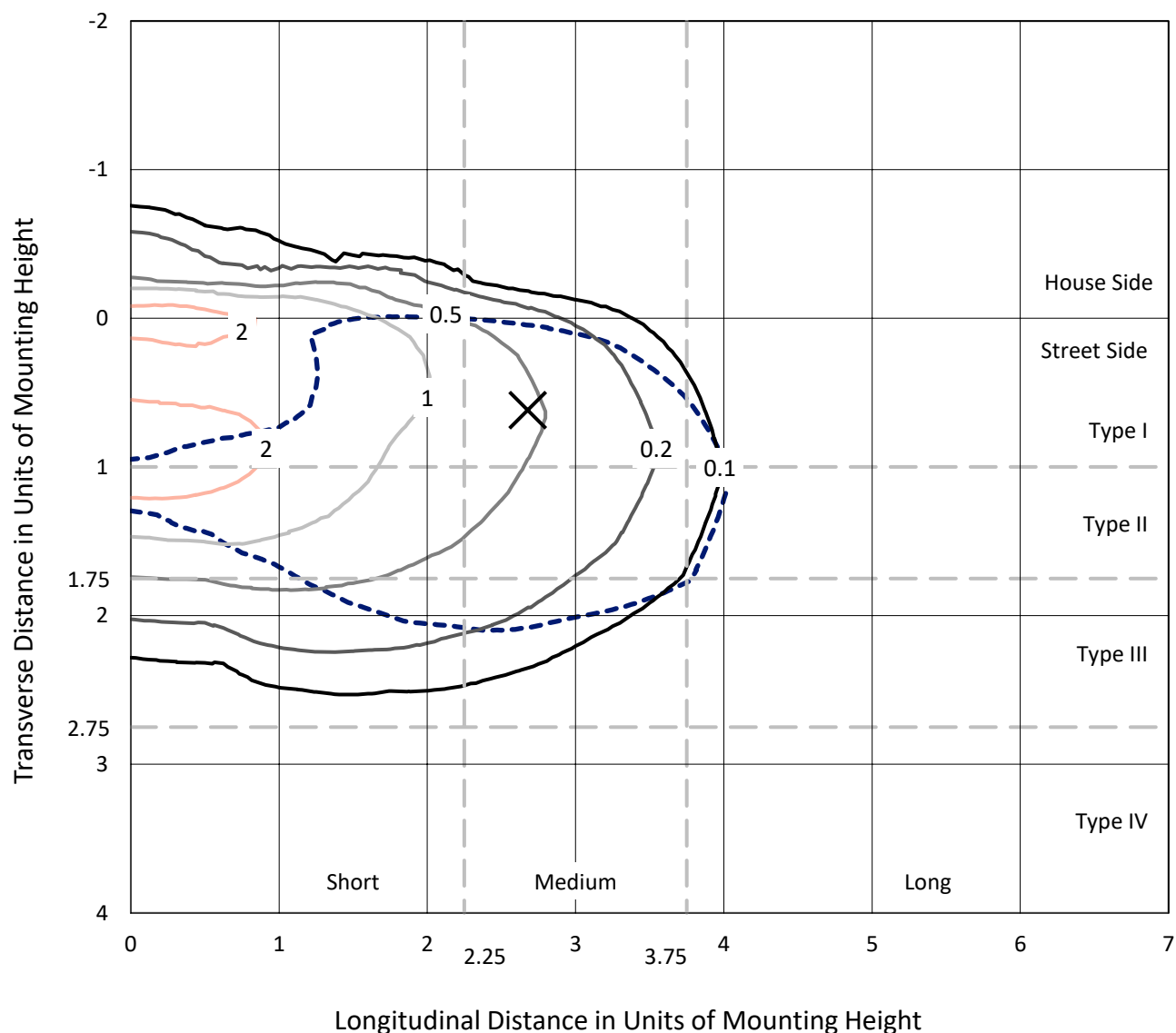
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

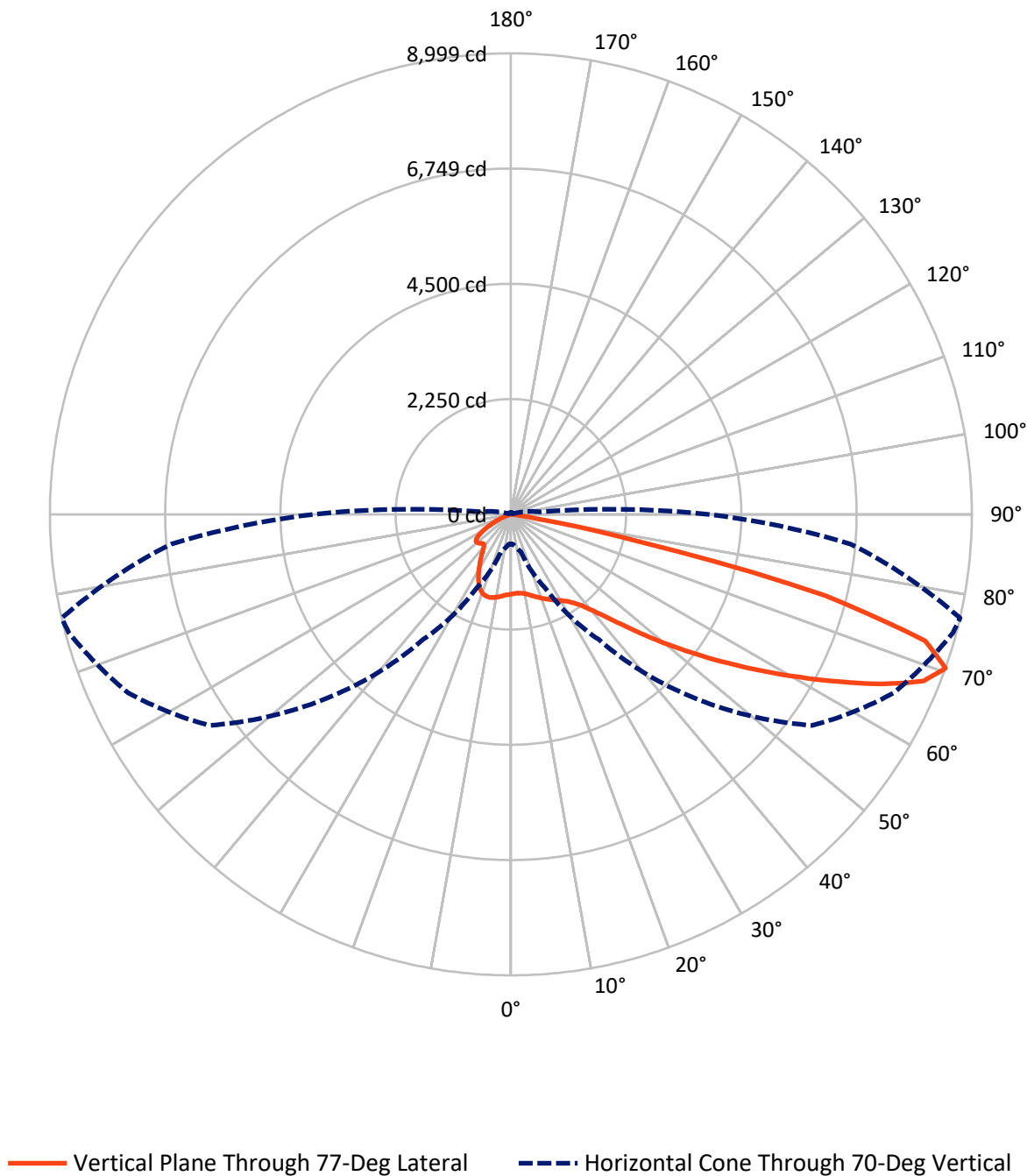
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1052.8	0.0	1052.8
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	8934.8	0.0	8934.8
	% Fixture	89.5	0.0	89.5
Total	Lumens	9987.6	0.0	9987.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	1.3
10°-20°	318.7	3.2
20°-30°	493.0	4.9
30°-40°	894.5	9.0
40°-50°	1688.6	16.9
50°-60°	2439.8	24.4
60°-70°	2597.2	26.0
70°-80°	1376.3	13.8
80°-90°	45.2	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°	9987.6	100.0
0°-180°	9987.6	100.0

Coefficient of Utilization



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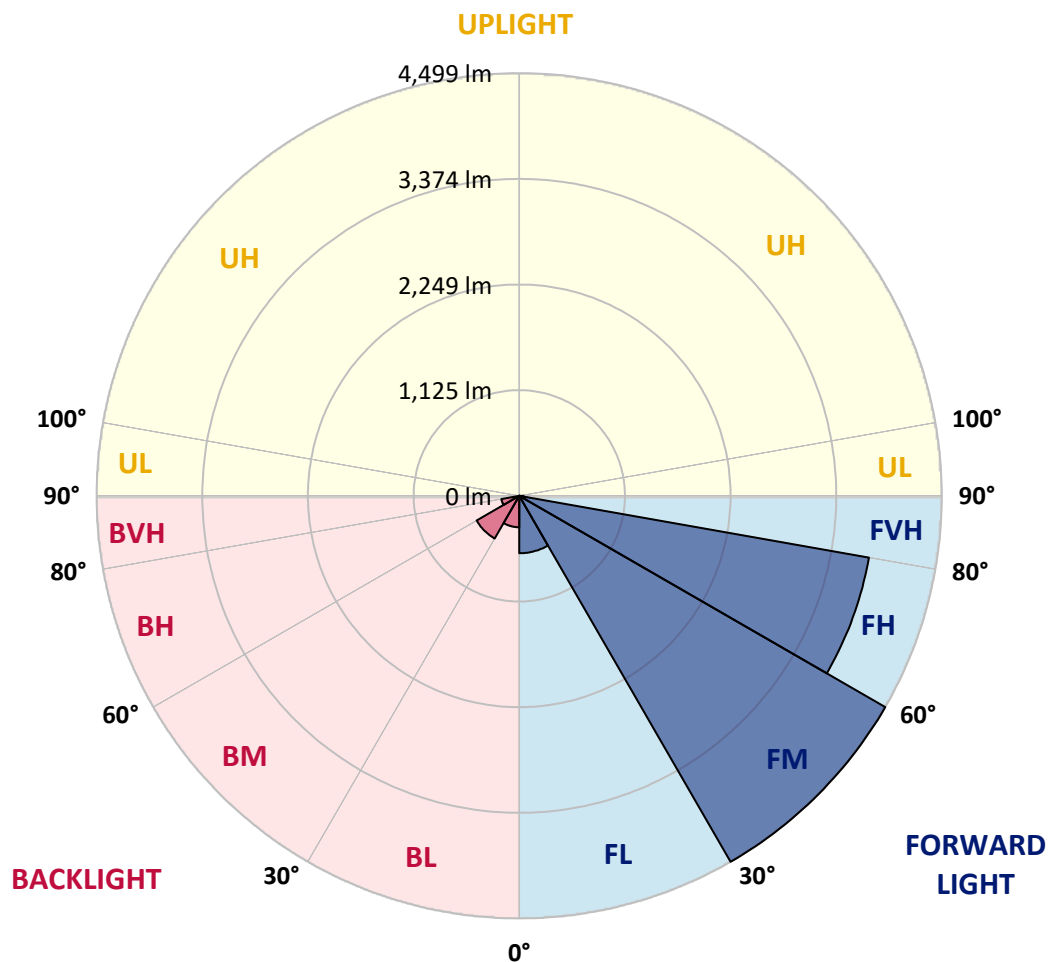
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	611.5	6.1			
FM	(30°-60°)	4498.9	45.0			
FH	(60°-80°)	3780.4	37.9			G2/5000
FVH	(80°-90°)	44.0	0.4			G1/100
BL	(0°-30°)	334.5	3.3	B1/500		
BM	(30°-60°)	524.1	5.2	B1/1000		
BH	(60°-80°)	193.0	1.9	B1/500		G1/500
BVH	(80°-90°)	1.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9
2.5°	1462.7	1475.9	1473.9	1482.9	1485.9	1498.6	1511.3	1528.3	1547.1	1546.5	1559.1
5°	1380.1	1393.3	1396.5	1408.5	1423.5	1443.1	1468.9	1503.1	1538.3	1544.1	1569.3
7.5°	1282.3	1296.1	1304.3	1328.3	1356.1	1396.5	1438.7	1488.5	1547.1	1555.3	1603.9
10°	1184.5	1197.1	1207.9	1241.9	1286.1	1345.9	1414.7	1486.7	1565.5	1577.5	1646.2
12.5°	1123.9	1135.9	1147.9	1177.5	1232.5	1305.6	1398.9	1495.5	1595.7	1612.7	1703.6
15°	1102.5	1113.3	1122.7	1149.1	1200.3	1283.5	1395.7	1513.7	1634.2	1656.9	1772.9
17.5°	1105.7	1111.3	1117.7	1137.9	1187.7	1273.5	1401.5	1545.3	1679.6	1699.8	1842.3
20°	1123.9	1127.1	1127.7	1141.6	1185.7	1272.1	1412.9	1575.5	1722.5	1749.7	1911.1
22.5°	1147.3	1148.5	1147.3	1156.7	1197.7	1281.7	1427.9	1612.1	1770.5	1795.7	1980.5
25°	1256.4	1232.5	1202.1	1183.9	1217.9	1299.9	1450.7	1661.3	1822.8	1847.4	2048.0
27.5°	1595.1	1526.3	1417.9	1296.1	1259.5	1326.5	1482.1	1711.1	1875.7	1897.9	2120.5
30°	2145.1	2054.9	1870.7	1596.3	1393.3	1381.9	1523.1	1761.0	1931.9	1955.9	2198.1
32.5°	2696.4	2674.2	2461.7	2082.0	1694.1	1505.5	1591.3	1828.5	2006.3	2025.3	2302.8
35°	3253.9	3209.1	3035.0	2659.8	2157.7	1757.2	1704.9	1916.7	2104.1	2125.5	2455.4
37.5°	3680.9	3653.8	3545.9	3236.8	2707.7	2145.7	1899.1	2053.6	2246.0	2270.0	2651.0
40°	4058.1	4045.5	4008.9	3805.1	3322.6	2654.0	2201.2	2265.6	2442.8	2471.2	2890.6
42.5°	4354.5	4384.1	4404.9	4348.2	3956.5	3234.4	2607.4	2563.2	2717.2	2746.2	3195.8
45°	4657.9	4668.0	4751.9	4833.9	4586.0	3841.1	3065.3	2912.0	3058.4	3094.4	3561.7
47.5°	4852.8	4893.1	5040.7	5185.2	5115.2	4442.8	3557.3	3323.9	3453.8	3521.3	3971.7
50°	4867.3	4943.6	5146.7	5398.4	5500.6	5015.5	4092.1	3793.2	3931.3	4005.7	4409.3
52.5°	4625.7	4744.3	5059.0	5427.4	5708.6	5500.6	4645.3	4262.5	4439.7	4536.8	4863.5
55°	3546.6	3701.7	4729.1	5269.7	5716.8	5868.2	5183.9	4751.3	5006.0	5115.8	5354.2
57.5°	3089.9	3168.1	3718.1	4996.0	5564.8	6016.4	5670.8	5216.7	5622.2	5758.4	5817.8
60°	2570.8	2673.6	3118.3	4548.1	5358.6	6031.0	6101.0	5817.2	6290.2	6443.5	6242.9
62.5°	1747.1	1858.7	2300.9	3778.7	5076.7	6024.0	6453.6	6435.3	7032.5	7197.1	6603.0
65°	1082.3	1152.3	1443.7	3085.5	4682.5	6031.6	6822.5	7185.9	7815.9	7983.0	6881.8
67.5°	855.3	887.4	1039.5	2369.0	4003.2	5861.3	7190.9	7891.6	8553.2	8685.6	6966.9
70°	574.6	594.1	756.2	1588.1	2978.2	5075.4	7183.9	8246.0	8933.0	8999.2	6656.7
72.5°	302.8	317.9	442.2	735.4	1798.8	3607.7	6055.6	7822.2	8555.2	8455.4	5689.8
75°	151.4	176.6	297.7	373.4	768.2	2012.0	3760.4	6167.2	6733.6	6347.6	3650.6
77.5°	114.8	138.8	246.0	246.0	267.4	677.4	1592.5	3363.6	3102.6	2583.4	1071.6
80°	73.2	94.6	215.0	186.0	111.6	172.2	415.0	942.3	659.1	501.4	194.9
82.5°	42.8	61.8	179.2	123.0	62.4	63.7	117.4	200.6	171.0	133.0	60.0
85°	17.0	40.4	123.0	48.6	24.6	15.8	35.4	42.8	35.4	26.4	15.2
87.5°	0.0	9.4	21.4	0.0	1.8	1.2	2.6	3.2	3.2	2.6	5.0
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°	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9	1557.9
2.5°	1564.9	1566.1	1569.9	1570.5	1561.7	1550.3	1545.9	1544.1	1536.5	1535.9	1537.1
5°	1583.7	1589.5	1583.7	1567.3	1528.3	1473.3	1431.7	1397.7	1366.7	1357.3	1351.7
7.5°	1621.6	1627.3	1610.3	1545.9	1447.5	1338.3	1240.0	1170.7	1108.2	1084.9	1075.4
10°	1675.9	1683.4	1629.7	1499.9	1325.7	1150.5	983.9	866.6	775.2	737.9	722.2
12.5°	1743.9	1747.1	1640.5	1429.9	1167.5	917.1	681.2	555.7	474.3	444.0	434.6
15°	1819.0	1814.6	1641.7	1334.7	951.7	648.4	444.6	365.2	332.4	322.3	322.3
17.5°	1897.9	1879.5	1616.5	1197.1	715.2	443.4	329.8	311.0	305.2	302.8	302.1
20°	1975.4	1934.4	1570.5	1017.3	513.4	331.2	299.6	293.9	290.8	289.5	288.2
22.5°	2046.1	1976.1	1491.7	808.6	372.8	292.6	283.2	278.2	272.4	270.0	269.3
25°	2114.8	2000.0	1380.7	613.7	298.4	273.8	266.2	256.7	249.2	246.0	244.8
27.5°	2181.7	2015.2	1241.9	454.1	266.2	256.0	242.2	229.0	223.2	222.0	220.8
30°	2253.0	2020.2	1084.2	338.7	246.6	234.0	213.8	198.6	195.6	196.2	196.2
32.5°	2340.0	2027.8	925.3	277.5	230.2	207.5	183.6	167.8	165.2	167.8	167.2
35°	2444.0	2042.9	772.0	255.4	215.7	180.4	154.6	141.2	138.8	140.6	140.0
37.5°	2585.4	2067.5	628.8	251.0	203.8	157.6	130.0	119.2	119.2	119.8	119.2
40°	2773.2	2133.1	500.8	247.8	197.4	140.6	109.8	105.4	107.2	108.4	108.4
42.5°	3002.2	2272.5	414.4	244.1	190.4	133.0	99.6	97.8	101.0	102.2	102.2
45°	3259.0	2449.1	384.1	237.8	184.2	138.2	95.2	92.8	96.5	97.2	97.8
47.5°	3524.5	2622.0	380.3	230.8	177.8	145.7	94.0	88.3	92.8	93.4	94.0
50°	3793.2	2734.8	384.1	220.2	167.8	145.7	94.6	83.8	87.6	89.6	90.2
52.5°	4063.7	2786.6	381.6	196.8	150.2	136.8	94.6	80.1	83.8	85.2	85.2
55°	4326.1	2776.4	343.1	162.1	127.4	121.1	92.0	77.0	79.4	80.1	80.1
57.5°	4533.7	2635.8	271.8	126.2	103.4	101.0	83.8	73.2	75.0	74.4	74.4
60°	4642.1	2326.8	194.2	97.2	81.4	79.4	73.8	68.2	69.4	66.2	65.6
62.5°	4643.4	1918.0	130.0	77.0	65.0	63.0	63.0	61.2	60.0	53.6	51.8
65°	4544.3	1464.5	86.4	61.2	52.4	49.2	53.0	52.4	48.0	39.2	37.8
67.5°	4319.9	959.9	65.6	48.0	40.4	38.4	42.2	44.2	41.0	32.8	32.2
70°	3858.1	558.8	54.2	37.2	30.2	28.4	34.0	37.8	34.0	26.4	25.2
72.5°	3204.7	301.5	44.2	27.8	20.8	19.0	27.2	31.0	27.2	19.6	19.0
75°	2079.5	161.4	34.0	18.2	10.8	12.0	20.2	22.8	19.0	12.6	11.4
77.5°	698.2	71.2	21.4	8.8	5.0	5.0	12.0	13.8	8.8	4.4	3.8
80°	155.8	29.6	8.8	3.8	1.8	1.8	2.6	2.6	1.2	0.0	0.0
82.5°	51.0	12.0	3.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	19.6	4.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.6	0.6	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)