

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: P962099

Luminaire Tested: **NAV-SB2B-830-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962099
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-830-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7988.9 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 73.9
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



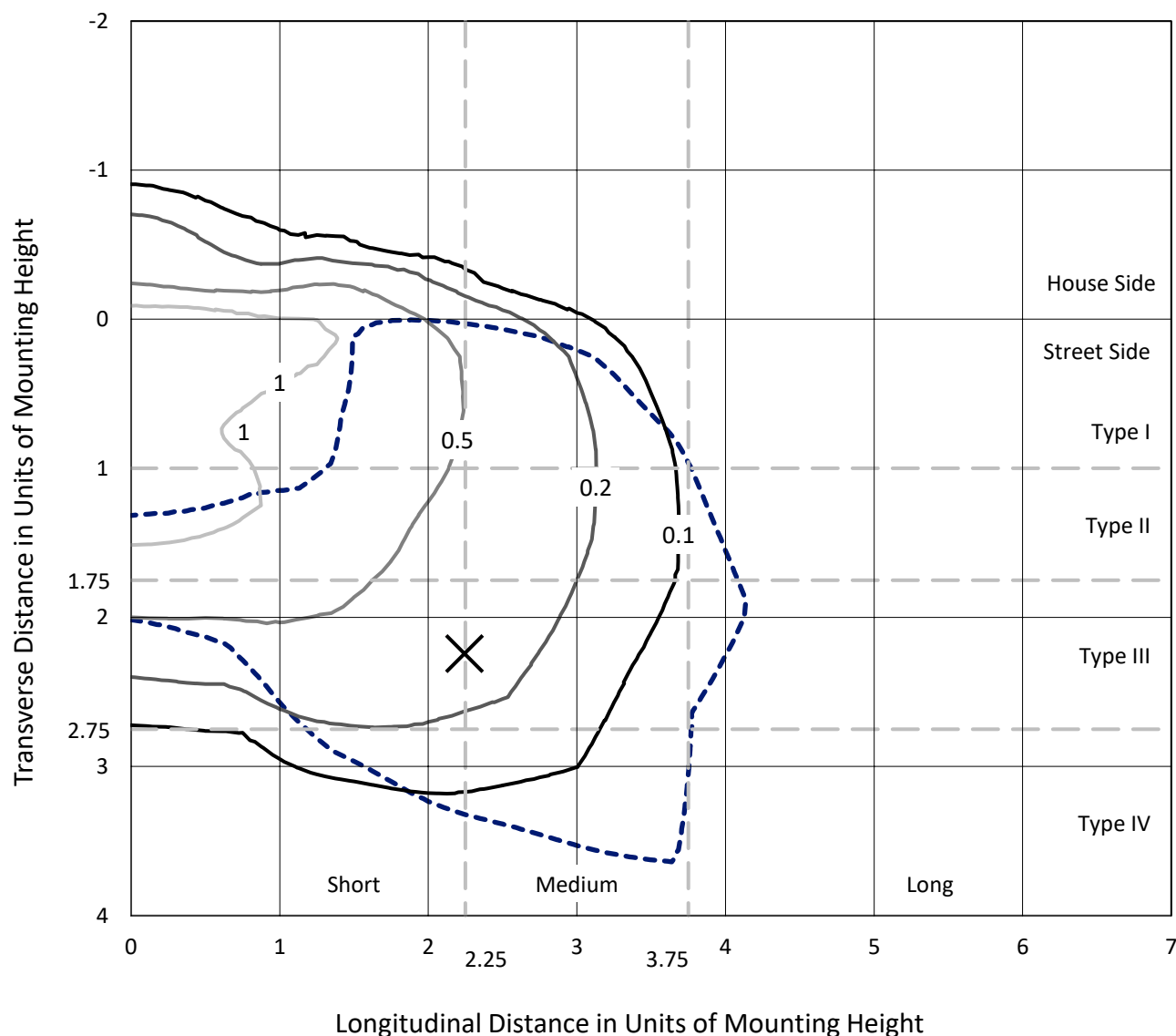
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

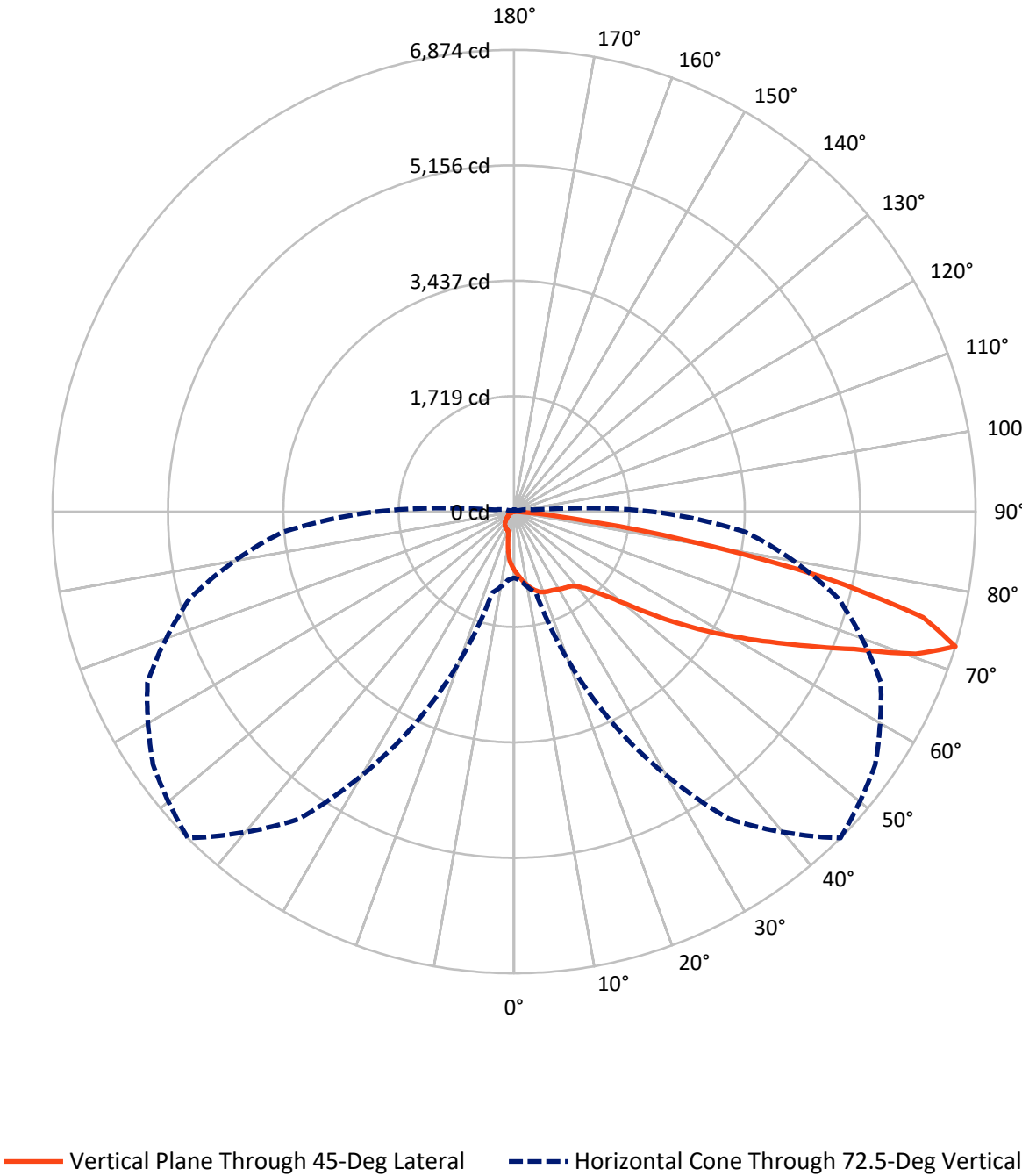


Based on 25 foot mounting height. Maximum calculated value = 1.9 fc

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	839.4	0.0	839.4
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	7149.5	0.0	7149.5
	% Fixture	89.5	0.0	89.5
Total	Lumens	7988.9	0.0	7988.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.5	1.0
10°-20°	241.0	3.0
20°-30°	395.8	5.0
30°-40°	561.3	7.0
40°-50°	927.7	11.6
50°-60°	1666.6	20.9
60°-70°	2314.1	29.0
70°-80°	1678.6	21.0
80°-90°	121.4	1.5
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°	7988.9	100.0
0°-180°	7988.9	100.0

Coefficient of Utilization



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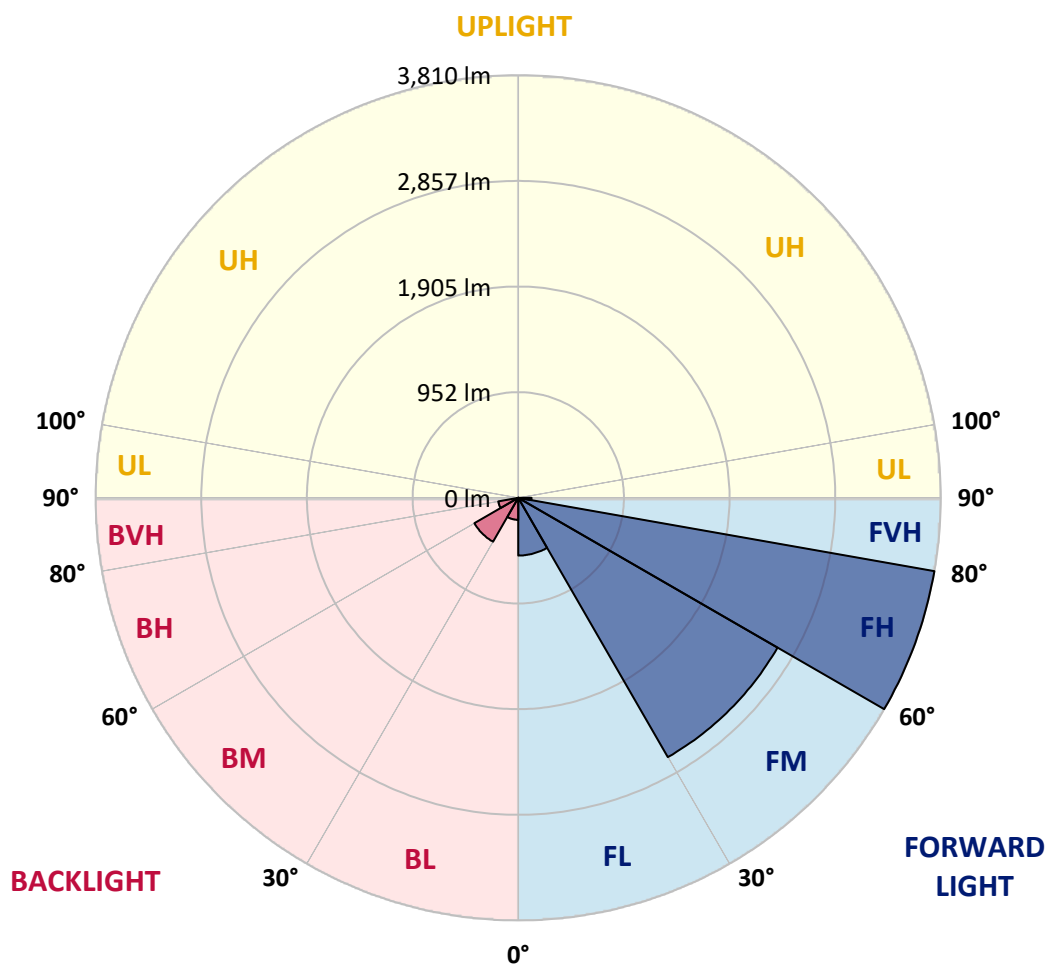
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	520.4	6.5			
FM	(30°-60°)	2699.1	33.8			
FH	(60°-80°)	3809.7	47.7			G2/5000
FVH	(80°-90°)	120.3	1.5			G2/225
BL	(0°-30°)	198.8	2.5	B1/500		
BM	(30°-60°)	456.5	5.7	B1/1000		
BH	(60°-80°)	183.0	2.3	B1/500		G1/500
BVH	(80°-90°)	1.0	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1
2.5°	955.9	957.6	956.4	949.9	939.0	933.0	929.7	918.8	911.7	899.2	886.1
5°	1043.7	1050.2	1046.4	1033.3	1012.6	997.8	993.5	971.2	951.0	927.5	900.3
7.5°	1136.9	1140.2	1133.1	1116.2	1088.4	1063.3	1059.5	1028.4	996.3	960.2	923.2
10°	1217.6	1221.5	1210.5	1186.0	1154.4	1123.3	1117.9	1083.5	1045.3	1001.1	953.8
12.5°	1285.2	1289.0	1274.9	1245.5	1210.5	1178.3	1172.9	1136.9	1094.9	1045.9	987.0
15°	1336.5	1343.6	1324.5	1292.9	1255.2	1223.1	1220.4	1184.9	1144.0	1089.5	1026.7
17.5°	1366.5	1373.6	1355.6	1317.4	1285.2	1258.0	1254.7	1225.3	1187.1	1134.8	1065.5
20°	1371.4	1377.9	1358.8	1325.6	1298.9	1277.0	1275.4	1254.2	1226.4	1176.2	1107.5
22.5°	1356.7	1364.9	1347.5	1320.7	1302.2	1290.7	1288.5	1276.5	1260.8	1218.2	1146.8
25°	1341.4	1348.0	1334.9	1311.4	1301.6	1300.5	1302.2	1300.0	1296.7	1260.8	1192.6
27.5°	1340.3	1347.5	1332.7	1310.4	1304.9	1316.3	1317.9	1328.3	1331.1	1299.4	1236.8
30°	1349.6	1354.5	1340.3	1316.9	1314.2	1340.3	1340.9	1359.5	1363.8	1332.2	1280.3
32.5°	1369.8	1375.2	1361.1	1326.7	1322.9	1359.5	1361.1	1385.6	1392.7	1367.0	1326.1
35°	1417.3	1423.7	1407.4	1353.9	1340.3	1377.4	1382.3	1411.2	1425.4	1404.1	1373.6
37.5°	1535.6	1516.5	1494.1	1409.1	1380.2	1405.8	1414.0	1447.7	1472.8	1448.3	1430.3
40°	1829.4	1769.5	1699.7	1502.9	1450.0	1466.3	1472.8	1506.6	1541.0	1517.0	1508.3
42.5°	2270.6	2199.8	2087.4	1718.7	1555.1	1563.3	1568.2	1597.7	1646.3	1627.2	1629.3
45°	2663.8	2638.1	2523.7	2087.4	1752.0	1711.6	1717.7	1733.0	1804.4	1797.2	1811.5
47.5°	2965.8	2951.1	2862.8	2510.5	2084.6	1893.3	1910.2	1917.3	2020.3	2045.4	2083.5
50°	3198.1	3192.7	3113.6	2886.8	2519.2	2161.0	2167.0	2151.7	2306.0	2368.2	2440.7
52.5°	3417.4	3435.9	3377.6	3236.3	2983.3	2511.7	2510.5	2438.6	2646.9	2740.6	2864.5
55°	3615.3	3621.8	3627.9	3592.9	3450.0	2910.8	2900.4	2782.7	3042.2	3139.3	3273.4
57.5°	3801.2	3804.0	3857.4	3928.8	3935.9	3339.3	3320.3	3179.0	3474.0	3543.3	3625.6
60°	3926.2	3938.7	4051.5	4250.1	4336.7	3781.6	3771.3	3627.3	3913.6	3945.7	3930.5
62.5°	3746.2	3822.5	4107.2	4500.9	4715.1	4271.8	4266.9	4131.7	4375.9	4349.8	4218.9
65°	3032.4	3161.6	3662.2	4670.4	5086.5	4819.3	4826.4	4682.4	4850.9	4765.8	4453.4
67.5°	2121.2	2257.6	2849.7	4684.0	5501.5	5462.2	5503.1	5277.3	5355.3	5164.5	4509.1
70°	1466.9	1537.2	1922.7	4390.7	5824.9	6347.7	6346.7	6008.0	5857.0	5346.1	4225.5
72.5°	986.5	1023.0	1248.8	3483.4	5587.1	6874.0	6842.4	6566.5	6026.1	4999.7	3452.2
75°	416.0	442.8	578.0	1957.6	4420.1	6288.9	6203.3	5803.0	5354.2	3937.0	2153.9
77.5°	131.9	143.4	228.0	700.7	2434.8	4727.2	4636.6	3624.0	3588.5	1975.1	787.4
80°	62.7	73.1	128.1	281.4	958.1	2571.0	2558.5	1644.1	1543.8	533.3	158.2
82.5°	27.3	32.2	70.9	150.5	428.6	917.2	935.7	559.4	463.0	202.3	48.5
85°	8.7	11.5	32.7	69.3	181.0	228.0	225.2	133.0	186.4	110.2	16.9
87.5°	0.0	0.0	10.9	15.8	18.6	13.1	14.8	11.5	51.8	30.5	6.0
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°	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1	875.1
2.5°	879.6	870.8	855.6	841.4	828.8	816.3	808.6	797.8	796.6	796.6	799.4
5°	885.6	871.4	844.1	815.2	782.0	750.3	718.7	688.2	678.3	671.3	674.6
7.5°	903.0	880.7	837.5	782.5	719.2	650.0	601.5	549.1	528.9	518.0	519.7
10°	928.1	897.6	832.1	735.6	633.0	538.7	469.4	412.8	390.9	381.7	381.7
12.5°	955.9	918.3	822.3	677.2	538.7	425.9	358.2	332.1	328.8	328.8	328.8
15°	989.1	943.3	805.4	608.5	440.0	337.0	313.0	314.1	317.3	319.5	319.5
17.5°	1023.6	970.1	778.7	531.7	352.8	303.2	303.7	305.3	308.1	310.3	310.3
20°	1060.6	996.8	743.2	449.9	302.7	293.4	295.0	296.6	298.8	299.9	300.4
22.5°	1100.4	1021.9	701.2	369.7	285.8	285.2	285.8	287.4	290.1	290.1	291.2
25°	1143.0	1049.7	653.2	311.4	277.1	277.1	278.1	279.2	281.4	281.4	281.9
27.5°	1186.5	1075.3	602.6	280.8	269.4	268.9	268.9	270.5	271.5	272.1	272.6
30°	1234.5	1105.4	551.9	274.3	263.4	260.7	259.0	260.1	261.2	261.8	262.8
32.5°	1283.6	1134.2	506.6	277.1	257.4	252.5	247.0	245.9	245.9	248.2	249.8
35°	1338.1	1165.8	471.7	286.3	254.1	240.5	231.8	226.8	227.3	230.6	232.3
37.5°	1403.6	1204.0	446.1	294.5	251.9	226.8	212.7	206.6	202.8	206.6	205.6
40°	1489.2	1260.1	427.5	301.0	249.2	211.0	192.0	182.1	175.1	177.2	176.1
42.5°	1615.2	1348.5	420.5	301.6	243.2	192.5	170.7	157.5	147.2	147.8	145.5
45°	1791.8	1488.1	456.9	294.5	230.1	172.3	148.3	130.9	124.3	122.7	120.5
47.5°	2033.9	1691.5	541.5	279.7	211.0	152.7	126.5	111.8	106.9	104.1	102.5
50°	2358.4	1952.7	635.3	263.4	192.0	134.2	108.5	99.2	95.9	93.3	92.7
52.5°	2734.6	2217.7	712.2	247.0	172.8	117.8	97.1	91.6	88.9	86.7	86.2
55°	3079.8	2400.3	707.8	229.6	154.4	104.7	88.9	85.6	82.3	80.2	79.0
57.5°	3294.7	2426.0	583.4	210.4	133.0	94.3	81.3	79.0	75.2	72.6	72.0
60°	3393.4	2279.9	409.0	185.4	111.8	84.6	73.1	72.0	67.0	63.2	62.1
62.5°	3411.4	2008.3	272.6	154.4	93.3	75.2	64.9	63.2	56.7	50.1	46.9
65°	3338.3	1620.1	188.7	120.5	79.6	65.4	55.7	52.4	45.3	38.7	36.5
67.5°	3107.1	1137.4	131.4	86.7	67.6	51.8	44.2	43.0	37.6	32.2	30.5
70°	2683.3	648.3	87.8	64.9	53.4	35.5	34.8	36.0	30.5	26.1	24.0
72.5°	2057.4	296.6	54.5	47.5	36.5	24.0	27.8	28.4	23.5	19.7	17.4
75°	1211.1	127.1	34.3	30.5	18.6	15.8	20.2	20.7	15.8	12.5	10.9
77.5°	412.3	48.0	21.8	18.0	9.2	8.7	13.1	13.1	8.7	4.9	3.8
80°	93.8	18.0	10.9	7.1	4.4	3.8	4.4	3.8	2.2	0.5	0.0
82.5°	26.8	7.1	4.4	2.8	1.6	1.6	0.5	0.0	0.0	0.0	0.0
85°	7.6	3.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	0.5	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)