

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: P961045

Luminaire Tested: **NAV-SB1D-830-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961045
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-SB1D-830-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7222.2 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

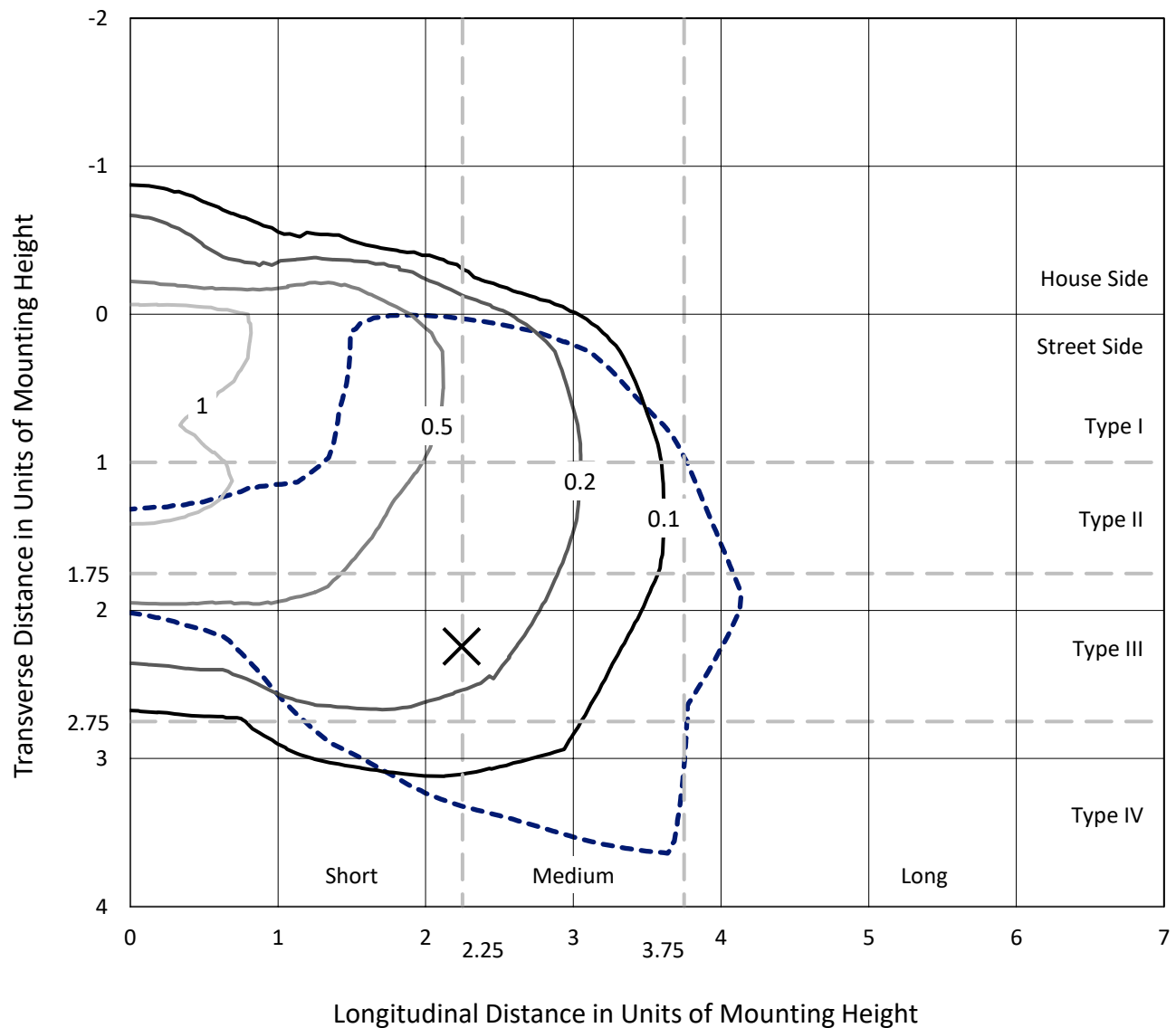
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P961045
CATALOG NUMBER: NAV-SB1D-830-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

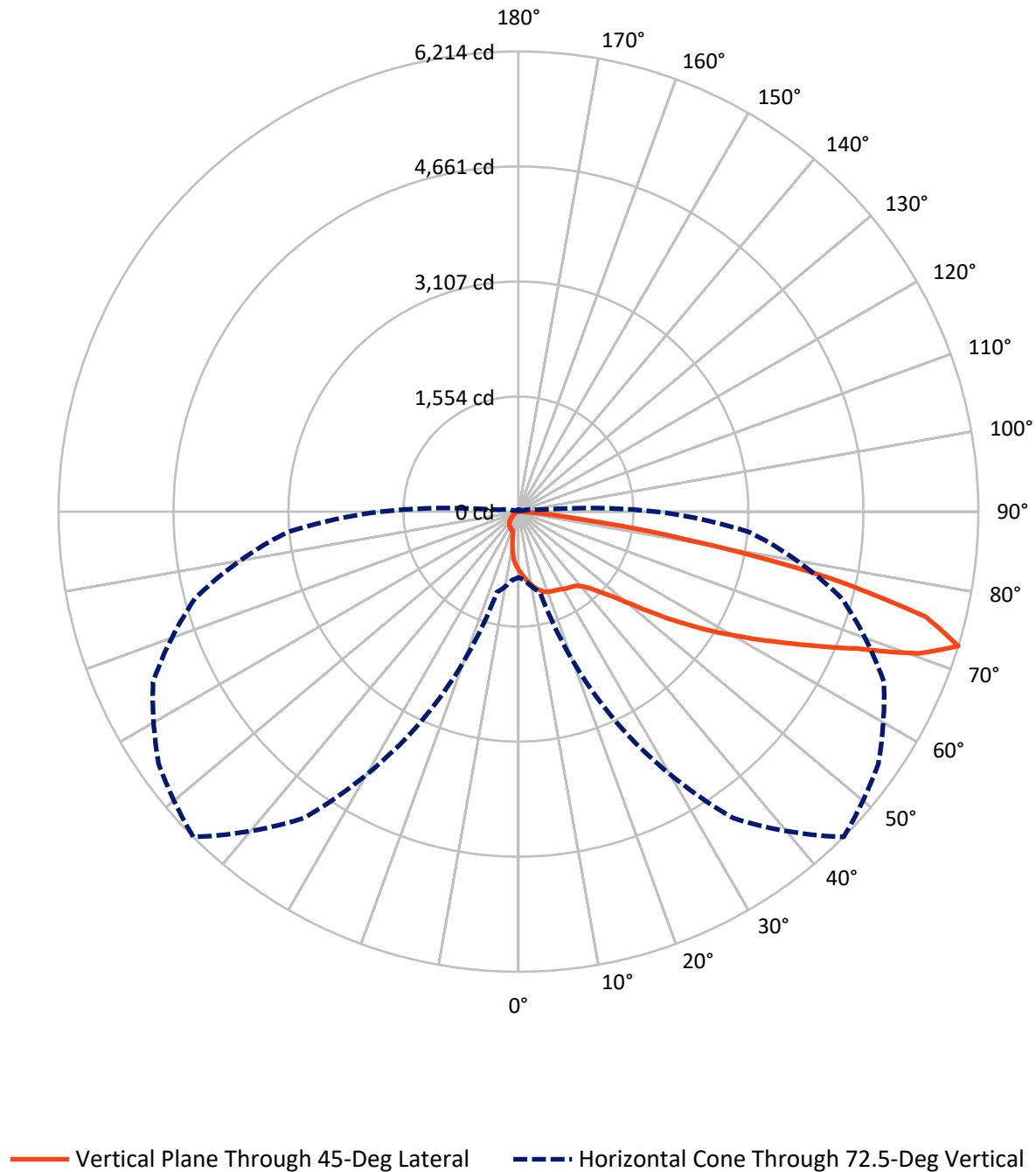
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
Type IV - Short - N/A

REPORT NUMBER: P961045
CATALOG NUMBER: NAV-SB1D-830-U-T4W-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	758.9	0.0	758.9
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	6463.3	0.0	6463.3
	% Fixture	89.5	0.0	89.5
Total	Lumens	7222.2	0.0	7222.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	1.0
10°-20°	217.9	3.0
20°-30°	357.8	5.0
30°-40°	507.4	7.0
40°-50°	838.7	11.6
50°-60°	1506.6	20.9
60°-70°	2092.0	29.0
70°-80°	1517.5	21.0
80°-90°	109.7	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°	7222.2	100.0
0°-180°	7222.2	100.0

Coefficient of Utilization



REPORT NUMBER: P961045

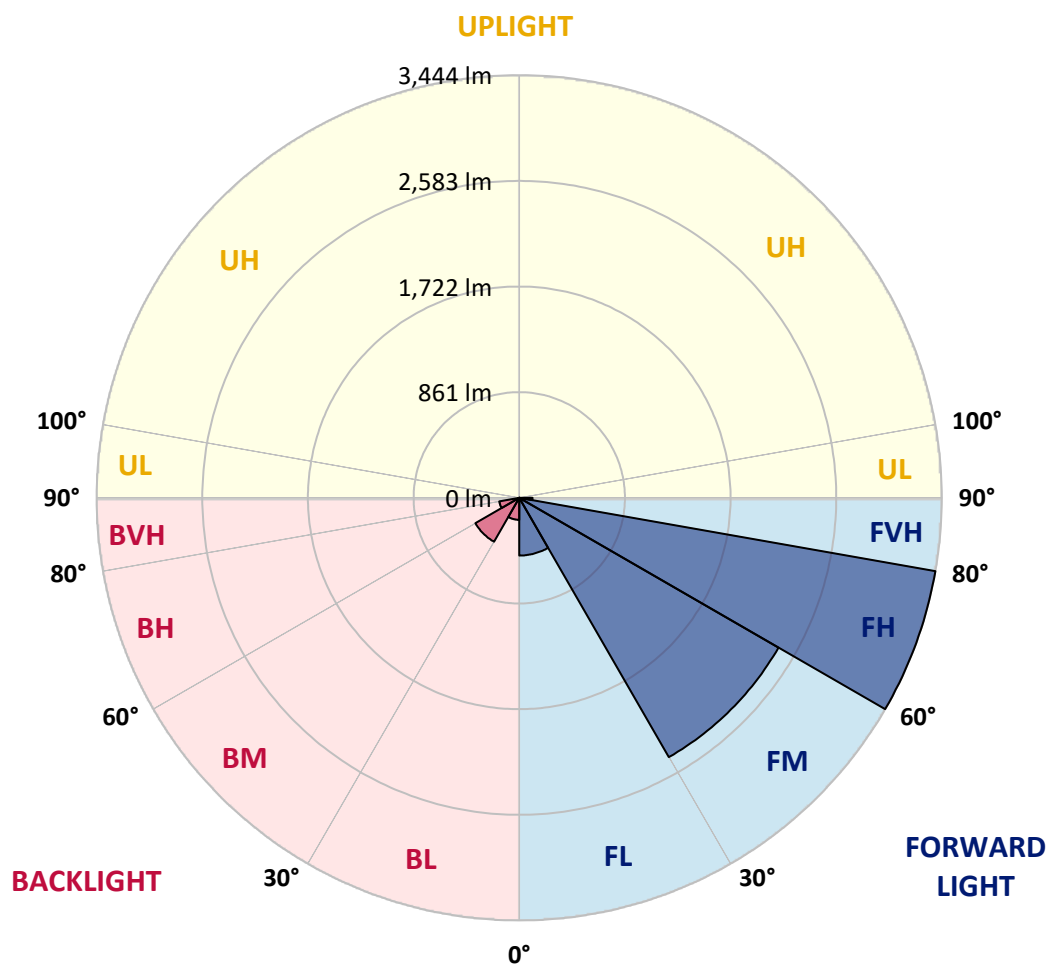
CATALOG NUMBER: NAV-SB1D-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	470.5	6.5			
FM	(30°-60°)	2440.0	33.8			
FH	(60°-80°)	3444.0	47.7			G2/5000
FVH	(80°-90°)	108.8	1.5			G2/225
BL	(0°-30°)	179.7	2.5	B1/500		
BM	(30°-60°)	412.7	5.7	B1/1000		
BH	(60°-80°)	165.5	2.3	B1/500		G1/500
BVH	(80°-90°)	0.9	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



REPORT NUMBER: P961045

CATALOG NUMBER: NAV-SB1D-830-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2
2.5°	864.2	865.6	864.7	858.7	848.9	843.5	840.5	830.7	824.2	812.9	801.0
5°	943.5	949.5	946.0	934.2	915.4	902.1	898.2	877.9	859.8	838.6	813.8
7.5°	1027.9	1030.7	1024.4	1009.1	984.0	961.2	957.9	929.7	900.7	868.1	834.6
10°	1100.7	1104.2	1094.4	1072.1	1043.6	1015.5	1010.5	979.5	945.0	905.1	862.2
12.5°	1161.9	1165.3	1152.5	1126.0	1094.4	1065.3	1060.4	1027.9	989.8	945.5	892.3
15°	1208.3	1214.6	1197.4	1168.8	1134.8	1105.7	1103.2	1071.2	1034.2	984.9	928.2
17.5°	1235.3	1241.8	1225.5	1190.9	1161.9	1137.2	1134.3	1107.7	1073.2	1025.8	963.3
20°	1239.8	1245.7	1228.5	1198.4	1174.2	1154.6	1153.0	1133.9	1108.6	1063.3	1001.2
22.5°	1226.5	1233.9	1218.1	1193.9	1177.2	1166.9	1164.9	1154.0	1139.7	1101.3	1036.7
25°	1212.7	1218.6	1206.7	1185.6	1176.7	1175.7	1177.2	1175.3	1172.3	1139.7	1078.1
27.5°	1211.7	1218.1	1204.8	1184.6	1179.7	1190.0	1191.5	1200.9	1203.4	1174.8	1118.1
30°	1220.1	1224.5	1211.7	1190.5	1188.1	1211.7	1212.2	1229.0	1232.9	1204.3	1157.4
32.5°	1238.3	1243.2	1230.4	1199.4	1196.0	1229.0	1230.4	1252.7	1259.0	1235.8	1198.8
35°	1281.2	1287.1	1272.3	1224.1	1211.7	1245.2	1249.7	1275.8	1288.6	1269.4	1241.8
37.5°	1388.2	1370.9	1350.7	1273.8	1247.7	1270.9	1278.3	1308.8	1331.5	1309.3	1293.0
40°	1653.8	1599.6	1536.6	1358.6	1310.8	1325.5	1331.5	1362.0	1393.1	1371.4	1363.6
42.5°	2052.7	1988.6	1887.0	1553.8	1405.9	1413.3	1417.8	1444.3	1488.2	1471.0	1472.9
45°	2408.1	2385.0	2281.4	1887.0	1583.9	1547.4	1552.9	1566.6	1631.2	1624.8	1637.6
47.5°	2681.2	2667.9	2588.0	2269.6	1884.6	1711.5	1726.8	1733.3	1826.4	1849.1	1883.6
50°	2891.2	2886.3	2814.9	2609.8	2277.4	1953.6	1959.0	1945.2	2084.7	2140.9	2206.5
52.5°	3089.4	3106.2	3053.4	2925.8	2697.0	2270.6	2269.6	2204.6	2392.9	2477.6	2589.6
55°	3268.3	3274.3	3279.7	3248.1	3119.0	2631.4	2622.1	2515.6	2750.2	2838.0	2959.3
57.5°	3436.4	3438.9	3487.3	3551.8	3558.2	3018.9	3001.6	2874.0	3140.7	3203.2	3277.7
60°	3549.3	3560.6	3662.7	3842.1	3920.5	3418.7	3409.4	3279.2	3538.0	3567.1	3553.3
62.5°	3386.6	3455.7	3713.0	4068.9	4262.7	3861.9	3857.4	3735.2	3956.0	3932.3	3814.0
65°	2741.4	2858.2	3310.7	4222.2	4598.4	4356.8	4363.2	4233.0	4385.4	4308.5	4026.0
67.5°	1917.6	2040.9	2576.2	4234.6	4973.5	4937.9	4974.9	4770.9	4841.4	4668.9	4076.3
70°	1326.0	1389.7	1738.2	3969.3	5265.8	5738.6	5737.5	5431.5	5294.8	4833.0	3820.0
72.5°	891.7	924.8	1128.8	3149.0	5050.9	6214.3	6185.7	5936.2	5447.7	4519.9	3120.9
75°	376.2	400.3	522.5	1769.8	3996.0	5685.3	5607.9	5246.1	4840.4	3559.2	1947.2
77.5°	119.3	129.7	206.0	633.4	2201.1	4273.4	4191.6	3276.2	3244.1	1785.6	711.9
80°	56.7	66.0	115.8	254.4	866.1	2324.3	2313.0	1486.2	1395.5	482.2	143.0
82.5°	24.6	29.1	64.1	136.0	387.4	829.1	845.9	505.7	418.5	182.9	43.9
85°	7.9	10.4	29.6	62.6	163.7	206.0	203.6	120.2	168.6	99.5	15.3
87.5°	0.0	0.0	9.8	14.2	16.8	11.8	13.3	10.4	46.8	27.6	5.4
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: P961045

CATALOG NUMBER: NAV-SB1D-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2	791.2
2.5°	795.2	787.3	773.5	760.7	749.3	738.0	731.0	721.2	720.2	720.2	722.7
5°	800.5	787.7	763.1	737.0	706.9	678.3	649.7	622.1	613.3	606.8	609.8
7.5°	816.3	796.1	757.2	707.4	650.3	587.6	543.8	496.4	478.2	468.3	469.8
10°	839.1	811.4	752.2	665.0	572.4	487.1	424.5	373.2	353.4	345.1	345.1
12.5°	864.2	830.1	743.4	612.2	487.1	385.0	323.9	300.2	297.2	297.2	297.2
15°	894.2	852.8	728.1	550.1	397.8	304.6	283.0	283.9	286.9	288.8	288.8
17.5°	925.3	877.0	704.0	480.6	319.0	274.1	274.6	276.0	278.5	280.5	280.5
20°	958.8	901.2	671.9	406.7	273.6	265.2	266.7	268.1	270.2	271.1	271.6
22.5°	994.8	923.8	634.0	334.3	258.3	257.8	258.3	259.8	262.3	262.3	263.2
25°	1033.2	948.9	590.6	281.5	250.4	250.4	251.4	252.4	254.4	254.4	254.8
27.5°	1072.7	972.1	544.7	253.9	243.5	243.0	243.0	244.5	245.5	246.0	246.5
30°	1116.0	999.3	498.9	247.9	238.1	235.6	234.1	235.1	236.2	236.6	237.6
32.5°	1160.4	1025.3	458.0	250.4	232.7	228.3	223.3	222.3	222.3	224.3	225.8
35°	1209.7	1053.9	426.4	258.8	229.7	217.4	209.5	205.1	205.6	208.5	210.0
37.5°	1268.8	1088.4	403.2	266.2	227.8	205.1	192.3	186.9	183.4	186.9	185.8
40°	1346.2	1139.2	386.5	272.1	225.3	190.8	173.5	164.6	158.3	160.2	159.2
42.5°	1460.1	1219.1	380.1	272.6	219.9	174.0	154.3	142.5	133.1	133.6	131.6
45°	1619.9	1345.3	413.1	266.2	208.1	155.8	134.1	118.3	112.4	110.9	109.0
47.5°	1838.7	1529.2	489.5	252.9	190.8	138.1	114.4	101.1	96.7	94.2	92.7
50°	2132.1	1765.3	574.3	238.1	173.5	121.3	98.1	89.7	86.7	84.3	83.8
52.5°	2472.2	2004.9	643.8	223.3	156.3	106.5	87.7	82.8	80.4	78.4	77.9
55°	2784.2	2170.0	639.9	207.6	139.5	94.6	80.4	77.4	74.4	72.5	71.4
57.5°	2978.4	2193.2	527.5	190.2	120.2	85.3	73.5	71.4	68.1	65.6	65.1
60°	3067.7	2061.1	369.7	167.6	101.1	76.4	66.0	65.1	60.7	57.2	56.2
62.5°	3083.9	1815.6	246.5	139.5	84.3	68.1	58.6	57.2	51.2	45.3	42.4
65°	3017.9	1464.6	170.6	109.0	72.0	59.1	50.3	47.4	40.9	35.0	33.0
67.5°	2808.9	1028.3	118.8	78.4	61.1	46.8	40.0	38.9	34.0	29.1	27.6
70°	2425.9	586.1	79.3	58.6	48.3	32.1	31.6	32.5	27.6	23.7	21.7
72.5°	1860.0	268.1	49.3	42.8	33.0	21.7	25.1	25.6	21.2	17.7	15.8
75°	1094.9	114.9	31.1	27.6	16.8	14.2	18.2	18.8	14.2	11.4	9.8
77.5°	372.7	43.4	19.7	16.3	8.4	7.9	11.8	11.8	7.9	4.4	3.5
80°	84.8	16.3	9.8	6.5	3.9	3.5	3.9	3.5	1.9	0.5	0.0
82.5°	24.2	6.5	3.9	2.5	1.4	1.4	0.5	0.0	0.0	0.0	0.0
85°	6.9	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.0	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)