

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: P882103

Luminaire Tested: **NAV-SB1D-827-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5776 lumens
Efficiency: N/A
Efficacy: 72.6 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

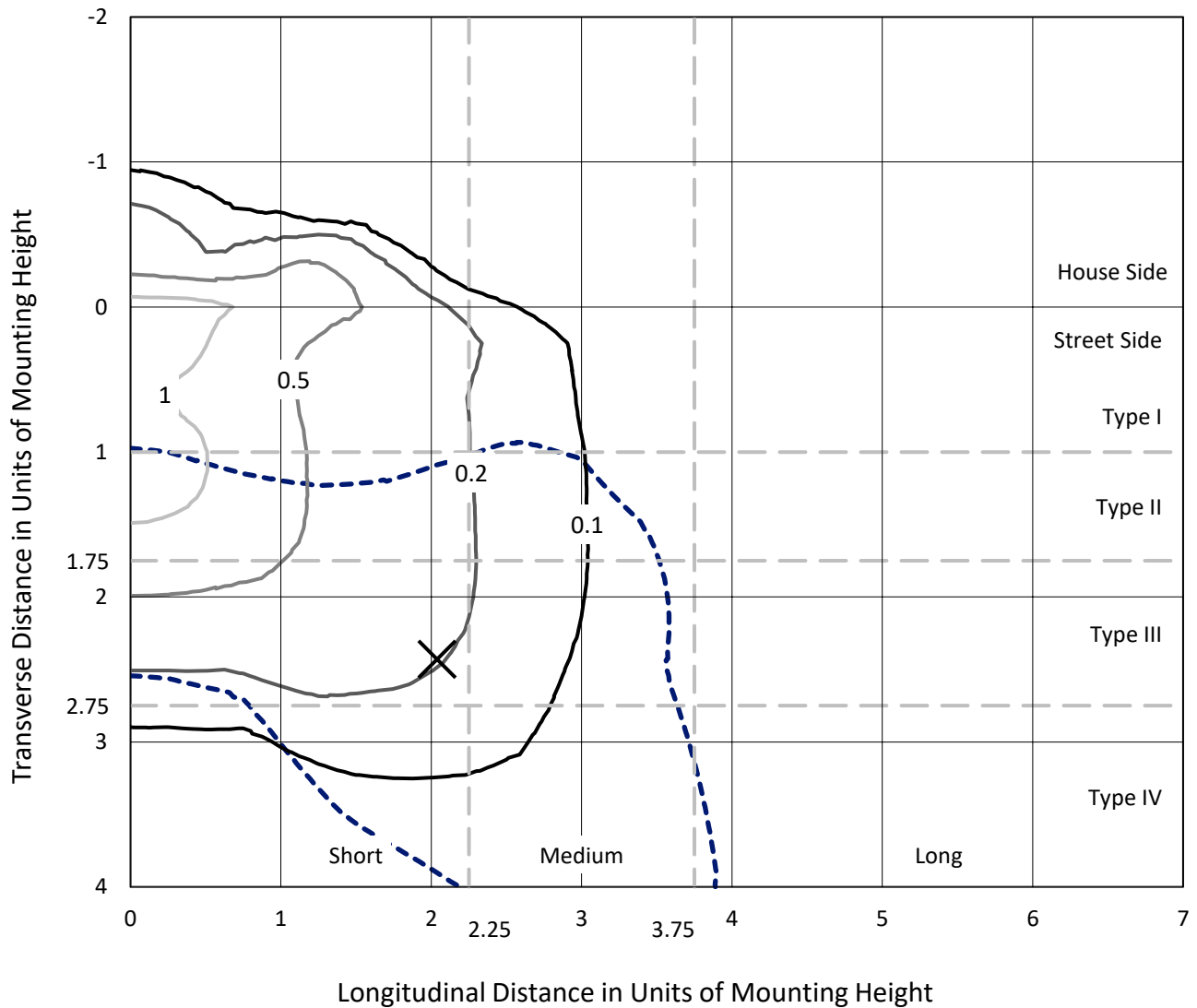
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

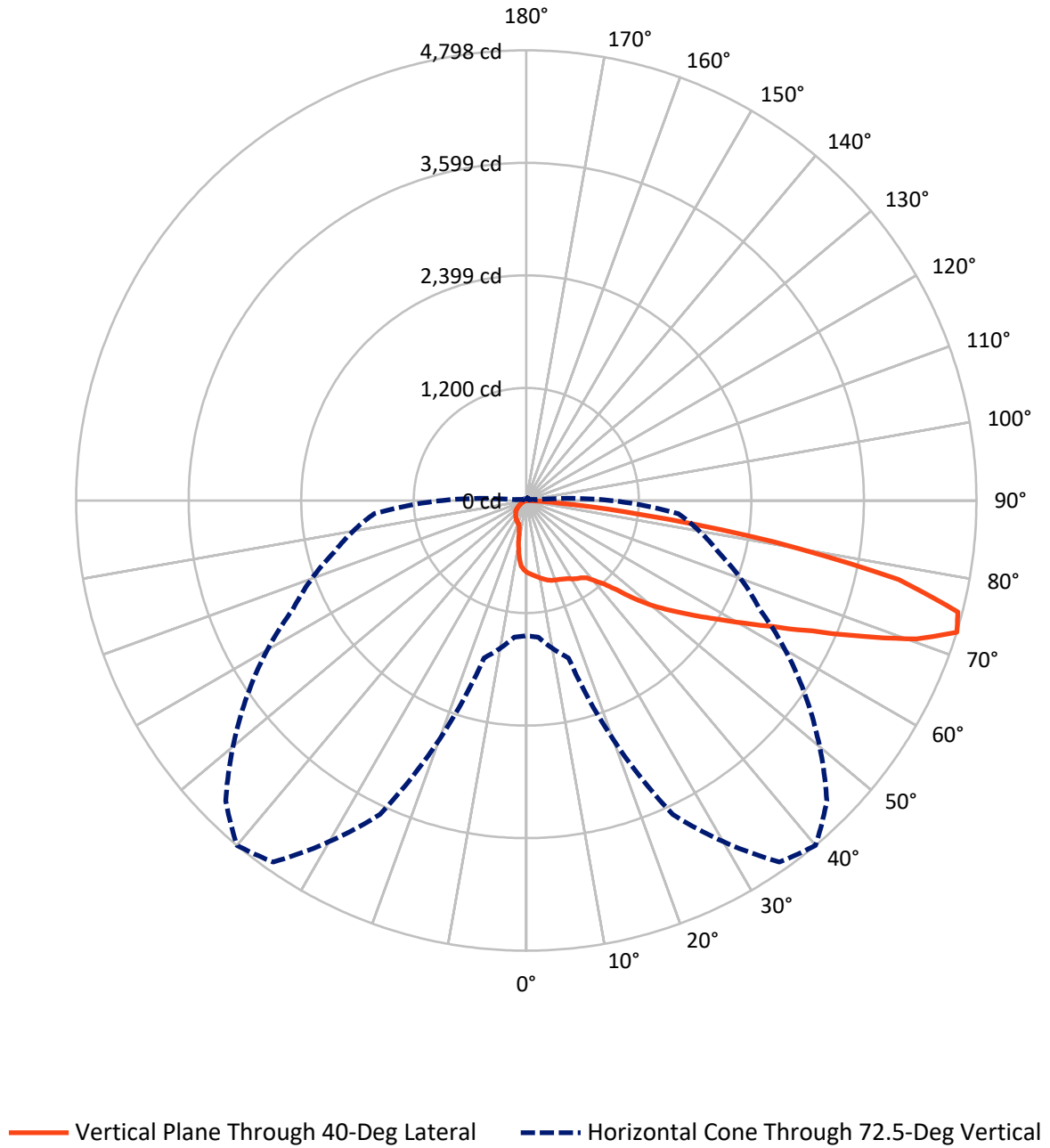
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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	745.9	0.0	745.9
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	5030.1	0.0	5030.1
	% Fixture	87.1	0.0	87.1
Total	Lumens	5776.0	0.0	5776.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	1.2
10°-20°	189.7	3.3
20°-30°	306.9	5.3
30°-40°	453.1	7.8
40°-50°	762.6	13.2
50°-60°	1184.1	20.5
60°-70°	1481.7	25.7
70°-80°	1213.0	21.0
80°-90°	115.0	2.0
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°	5776.0	100.0
0°-180°	5776.0	100.0

Coefficient of Utilization



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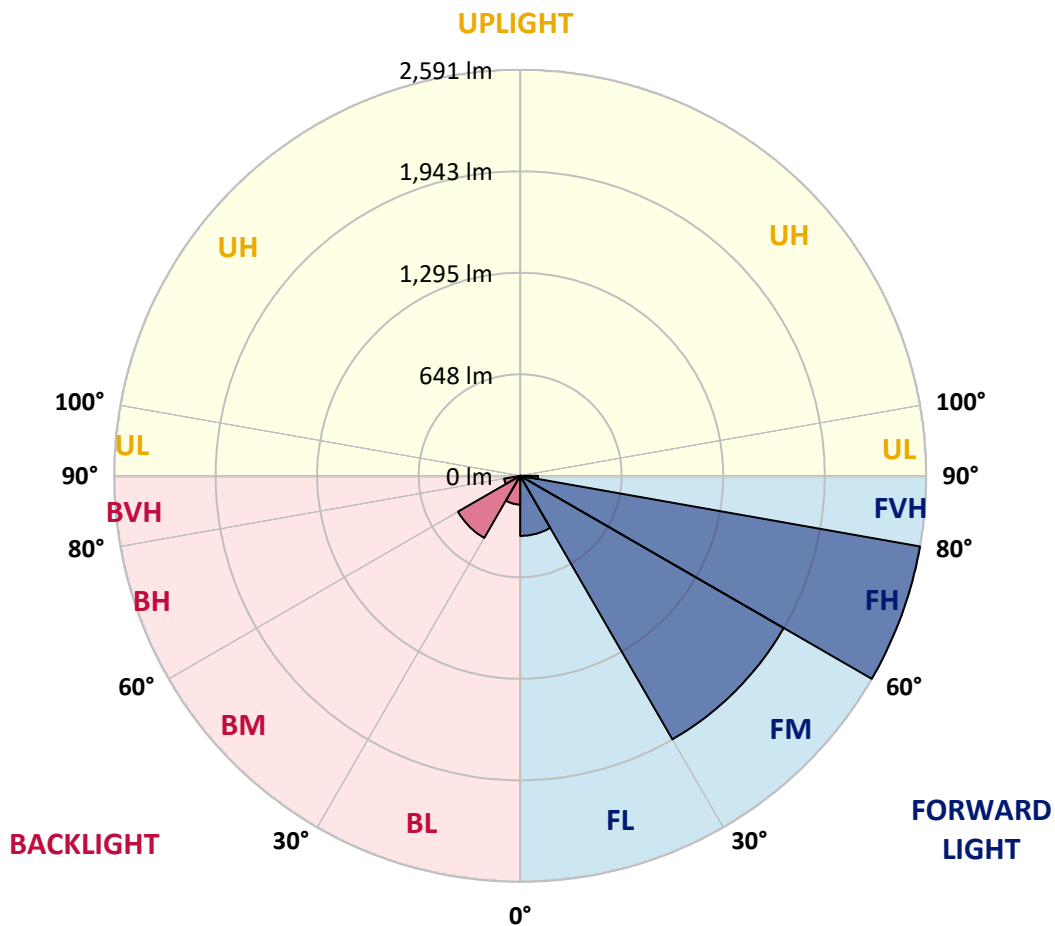
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	383.4	6.6			
FM (30°-60°)	1941.8	33.6			
FH (60°-80°)	2590.8	44.9			G2/5000
FVH (80°-90°)	114.1	2.0			G2/225
BL (0°-30°)	183.1	3.2	B1/500		
BM (30°-60°)	458.0	7.9	B1/1000		
BH (60°-80°)	103.9	1.8	B0/110		G0/110
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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8
2.5°	787.8	790.9	789.2	785.7	784.8	783.1	780.9	780.0	777.0	774.4	771.3
5°	810.0	813.1	810.9	806.1	803.9	801.8	798.7	796.1	790.0	784.4	777.4
7.5°	834.4	837.0	834.4	827.4	824.0	821.3	817.0	813.1	806.1	797.9	789.2
10°	861.4	863.5	859.6	850.5	844.8	840.9	837.0	832.7	826.1	817.0	806.6
12.5°	886.6	889.2	883.1	872.2	865.7	861.8	857.5	854.0	847.4	838.7	827.9
15°	909.7	913.6	903.1	891.4	884.0	880.9	876.6	874.4	870.1	864.0	854.0
17.5°	927.1	929.7	918.8	904.9	896.6	894.4	891.4	892.7	891.8	888.8	882.2
20°	941.8	943.6	929.2	912.3	903.1	903.6	902.7	907.0	908.8	908.8	908.4
22.5°	960.1	960.6	942.3	921.0	910.1	913.1	914.4	919.2	922.7	926.2	934.0
25°	984.0	983.2	961.4	932.3	922.7	927.1	930.1	931.8	935.8	941.4	959.2
27.5°	1019.7	1017.1	989.3	950.5	939.2	943.2	948.8	947.9	946.2	950.5	980.6
30°	1065.0	1061.5	1024.5	976.2	965.8	969.3	971.0	963.2	950.5	954.5	999.3
32.5°	1136.7	1130.7	1079.3	1004.9	988.8	992.7	990.6	974.5	955.8	959.7	1018.0
35°	1261.6	1246.8	1174.2	1065.0	1014.9	1010.6	1005.4	989.7	966.6	962.7	1033.6
37.5°	1527.0	1500.9	1376.9	1182.0	1074.1	1045.8	1029.7	1014.1	978.4	962.7	1051.5
40°	1826.3	1799.7	1656.6	1377.8	1172.4	1124.6	1086.3	1042.8	990.6	968.4	1079.3
42.5°	2138.6	2109.5	1962.4	1620.5	1312.9	1214.6	1143.3	1065.8	1010.6	985.8	1116.3
45°	2487.5	2451.0	2258.7	1873.7	1517.0	1364.3	1235.1	1113.3	1045.4	1016.7	1166.8
47.5°	2855.6	2808.1	2554.1	2119.5	1736.7	1571.3	1403.0	1198.1	1096.7	1062.8	1235.1
50°	3181.8	3134.9	2859.0	2376.6	1942.0	1768.4	1594.4	1315.5	1173.7	1128.0	1326.9
52.5°	3416.3	3380.6	3136.6	2642.0	2155.6	1953.3	1768.0	1452.1	1271.2	1211.6	1435.2
55°	3573.4	3540.7	3333.2	2893.4	2404.0	2156.9	1938.9	1600.5	1388.6	1311.6	1554.8
57.5°	3668.6	3649.9	3475.5	3117.9	2650.2	2379.6	2134.7	1763.6	1527.0	1429.5	1688.4
60°	3702.6	3687.3	3563.8	3331.9	2947.8	2647.2	2364.8	1947.6	1694.9	1563.5	1825.4
62.5°	3612.1	3615.1	3627.3	3585.5	3261.4	2960.4	2640.7	2168.6	1881.1	1715.3	1954.2
65°	3186.2	3211.4	3442.9	3866.6	3676.9	3352.8	2991.7	2438.4	2094.3	1888.0	2056.4
67.5°	2638.0	2674.6	2962.6	4031.0	4119.8	3862.2	3480.7	2782.0	2348.3	2063.8	2095.1
70°	2019.4	2058.6	2407.5	3996.7	4534.4	4419.1	4085.4	3219.2	2611.5	2185.6	1996.4
72.5°	1441.3	1461.3	1736.2	3690.8	4704.5	4798.4	4530.9	3633.4	2745.9	2118.2	1628.3
75°	1012.8	1009.3	1191.6	2972.2	4439.5	4752.3	4374.7	3409.4	2484.9	1682.7	1004.1
77.5°	441.1	442.0	595.1	1805.0	3543.3	4058.9	3636.4	2135.6	1732.3	891.8	423.7
80°	114.4	117.9	218.4	718.7	2133.4	2678.9	2217.8	938.8	800.5	217.5	80.9
82.5°	40.5	43.1	100.5	225.8	787.0	1228.5	987.5	300.2	208.8	62.2	21.8
85°	11.7	13.9	53.9	69.2	162.7	347.2	239.7	58.3	51.3	32.2	5.7
87.5°	0.0	1.7	10.9	9.6	9.6	6.5	12.2	6.5	8.3	3.9	1.7
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°	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8	764.8
2.5°	768.7	765.7	759.1	752.2	745.6	739.6	737.8	731.3	728.2	728.7	728.2
5°	772.6	767.0	754.3	739.1	723.5	705.6	690.8	670.0	652.1	649.9	648.6
7.5°	783.1	773.9	753.5	723.9	684.7	635.6	589.9	544.7	519.0	505.1	504.2
10°	799.2	787.0	755.7	699.1	616.0	528.1	459.0	402.0	372.8	359.3	356.7
12.5°	818.3	804.8	759.1	656.9	527.3	412.0	337.2	302.3	296.3	295.4	295.0
15°	845.3	830.5	763.0	599.9	431.1	313.7	279.3	279.7	284.5	287.1	286.7
17.5°	875.3	860.5	757.4	530.3	336.3	268.0	267.1	271.0	278.0	280.6	280.2
20°	905.7	891.8	737.4	448.5	271.9	255.4	258.8	263.2	270.2	273.6	273.6
22.5°	937.1	924.9	705.6	361.5	245.4	246.2	250.6	254.9	262.8	266.7	266.7
25°	970.6	960.1	663.4	289.7	234.0	236.7	242.3	247.5	255.8	260.6	260.6
27.5°	1004.5	996.7	615.6	241.9	223.6	226.7	233.2	240.1	248.4	254.1	254.5
30°	1041.5	1037.1	577.3	224.0	213.6	216.2	223.6	231.4	240.6	247.5	248.4
32.5°	1079.3	1078.4	558.6	237.1	204.5	206.2	212.7	220.6	231.9	240.6	241.4
35°	1116.7	1118.5	547.7	274.1	201.4	196.6	201.0	207.9	221.4	232.3	234.0
37.5°	1164.6	1168.9	547.3	314.1	208.8	187.1	190.1	194.9	206.6	219.3	221.4
40°	1235.9	1259.0	575.1	348.5	221.9	178.4	179.2	180.1	186.2	196.6	200.1
42.5°	1330.8	1398.2	675.6	372.0	227.1	170.5	167.5	162.7	161.8	167.5	170.5
45°	1448.7	1566.6	852.2	385.0	221.9	161.8	153.6	141.0	136.2	140.1	140.1
47.5°	1587.4	1751.0	1061.5	388.1	213.2	151.0	136.2	119.6	115.7	117.0	116.6
50°	1722.7	1889.4	1245.5	362.8	198.8	137.0	117.0	103.1	100.5	100.9	100.9
52.5°	1842.4	1936.8	1297.7	303.2	179.7	120.1	100.5	90.9	89.2	89.2	88.7
55°	1921.5	1885.4	1157.2	231.9	155.7	102.7	86.1	81.4	80.5	80.0	79.2
57.5°	1938.1	1718.4	874.0	167.5	121.8	86.6	76.6	74.0	72.2	70.5	69.6
60°	1878.9	1440.0	556.4	117.0	91.4	74.0	67.9	66.1	62.6	59.2	57.9
62.5°	1751.0	1087.6	308.0	81.4	73.5	63.1	60.0	57.9	51.3	45.7	43.9
65°	1579.2	723.0	136.2	63.5	60.0	53.1	51.3	48.3	40.5	33.9	32.6
67.5°	1406.5	416.3	61.3	50.9	48.3	43.5	42.2	40.0	34.4	28.3	27.4
70°	1209.4	211.0	42.2	40.5	37.4	33.1	34.4	33.9	28.3	23.1	22.2
72.5°	900.5	104.8	31.8	30.5	27.0	23.5	28.3	27.8	22.2	17.4	16.5
75°	509.9	51.8	23.1	21.3	16.1	17.4	22.6	21.3	15.2	11.3	10.4
77.5°	202.3	26.5	15.2	13.1	9.6	11.7	16.5	14.4	7.8	4.8	4.4
80°	46.5	13.1	7.8	5.7	4.4	7.0	8.7	5.2	2.2	0.4	0.0
82.5°	13.1	5.7	2.6	2.2	2.2	2.6	2.2	0.9	0.0	0.0	0.0
85°	4.4	2.6	0.9	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
87.5°	1.7	0.9	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)