

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: P882119

Luminaire Tested: **NAV-SB1D-830-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882119
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8918 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

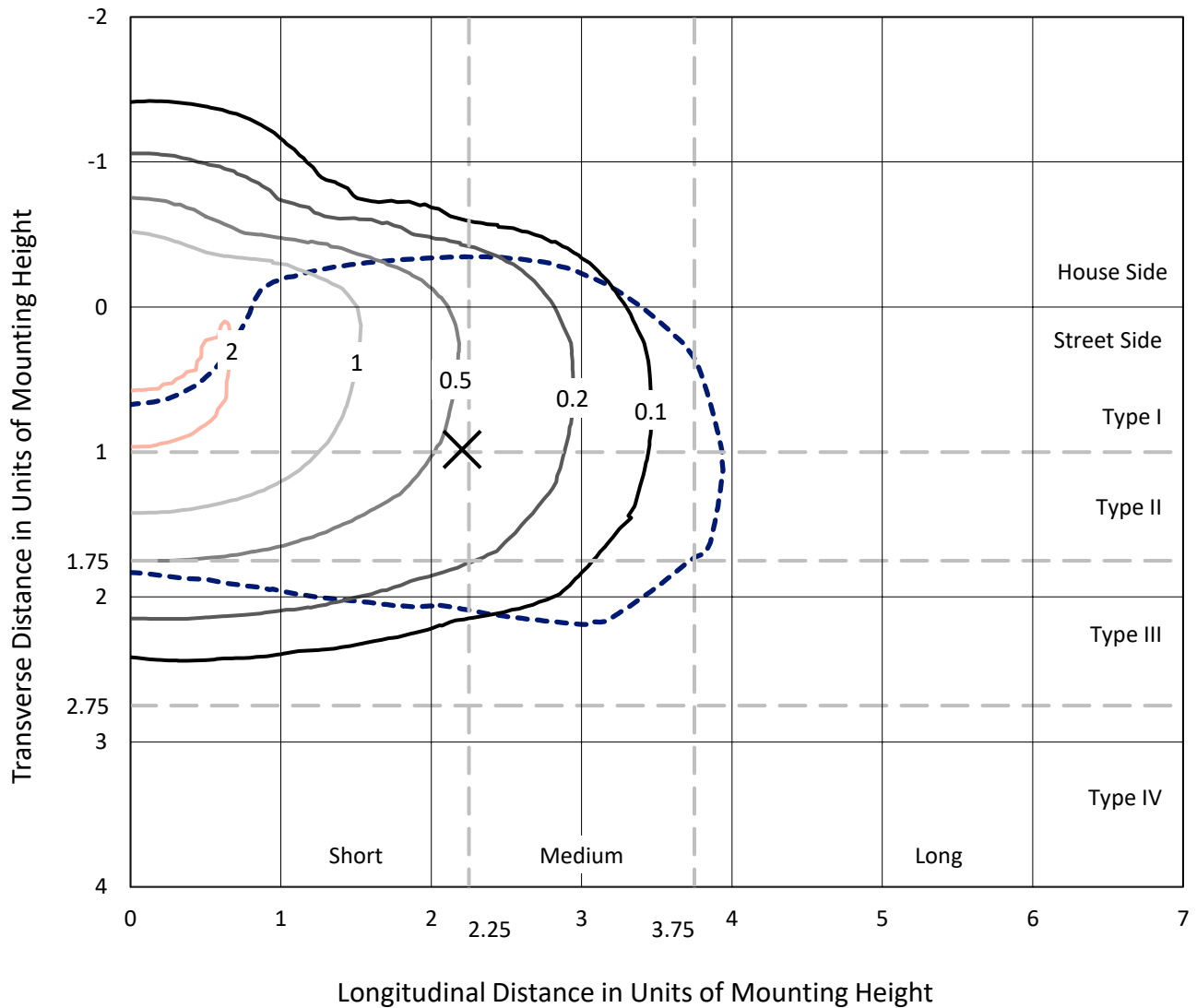
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

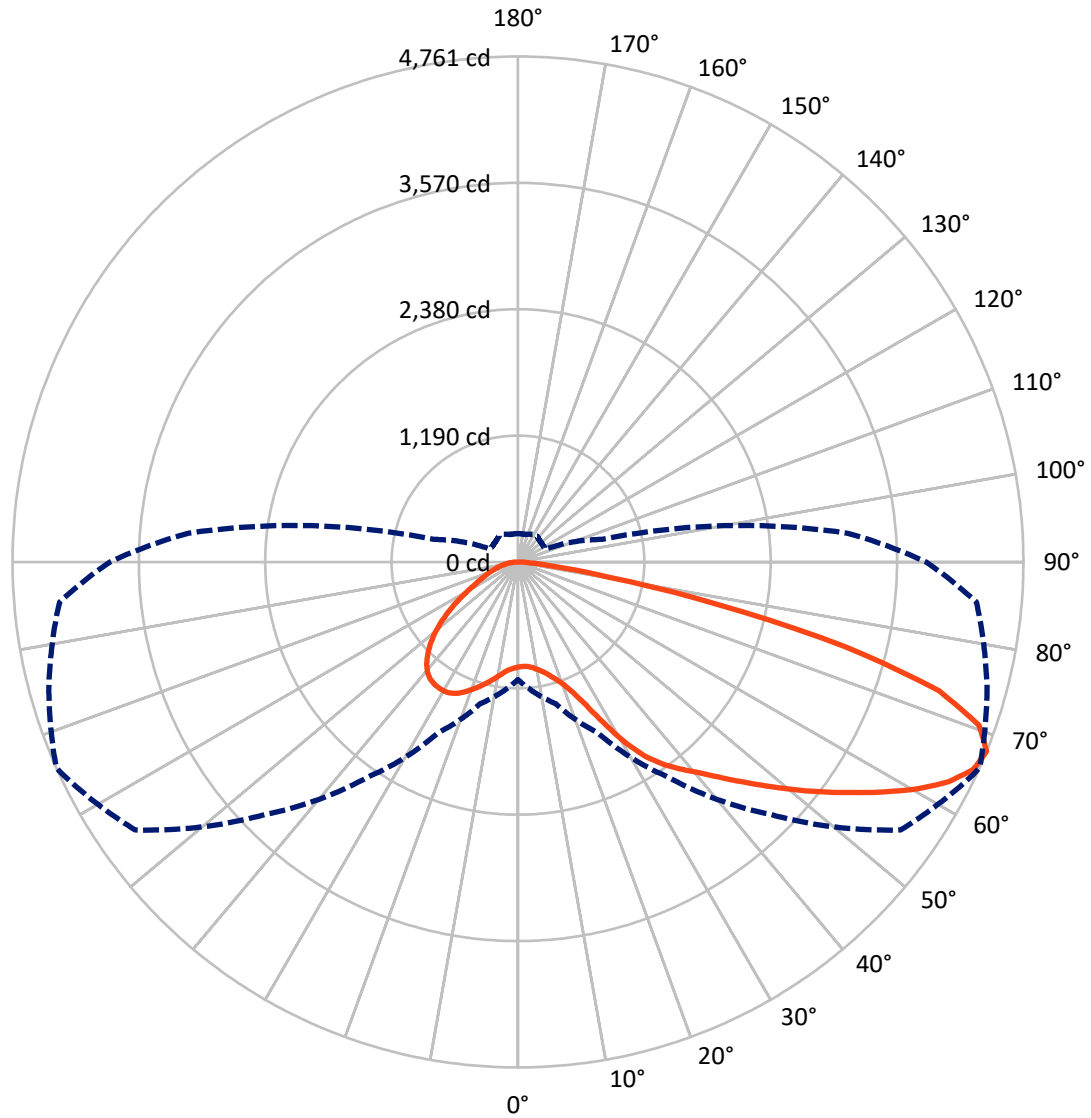
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2217.4	0.0	2217.4
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	6700.6	0.0	6700.6
	% Fixture	75.1	0.0	75.1
Total	Lumens	8918.0	0.0	8918.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	1.1
10°-20°	324.0	3.6
20°-30°	624.5	7.0
30°-40°	1095.0	12.3
40°-50°	1627.9	18.3
50°-60°	2063.5	23.1
60°-70°	2019.1	22.6
70°-80°	963.1	10.8
80°-90°	102.9	1.2
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°	8918.0	100.0
0°-180°	8918.0	100.0

Coefficient of Utilization



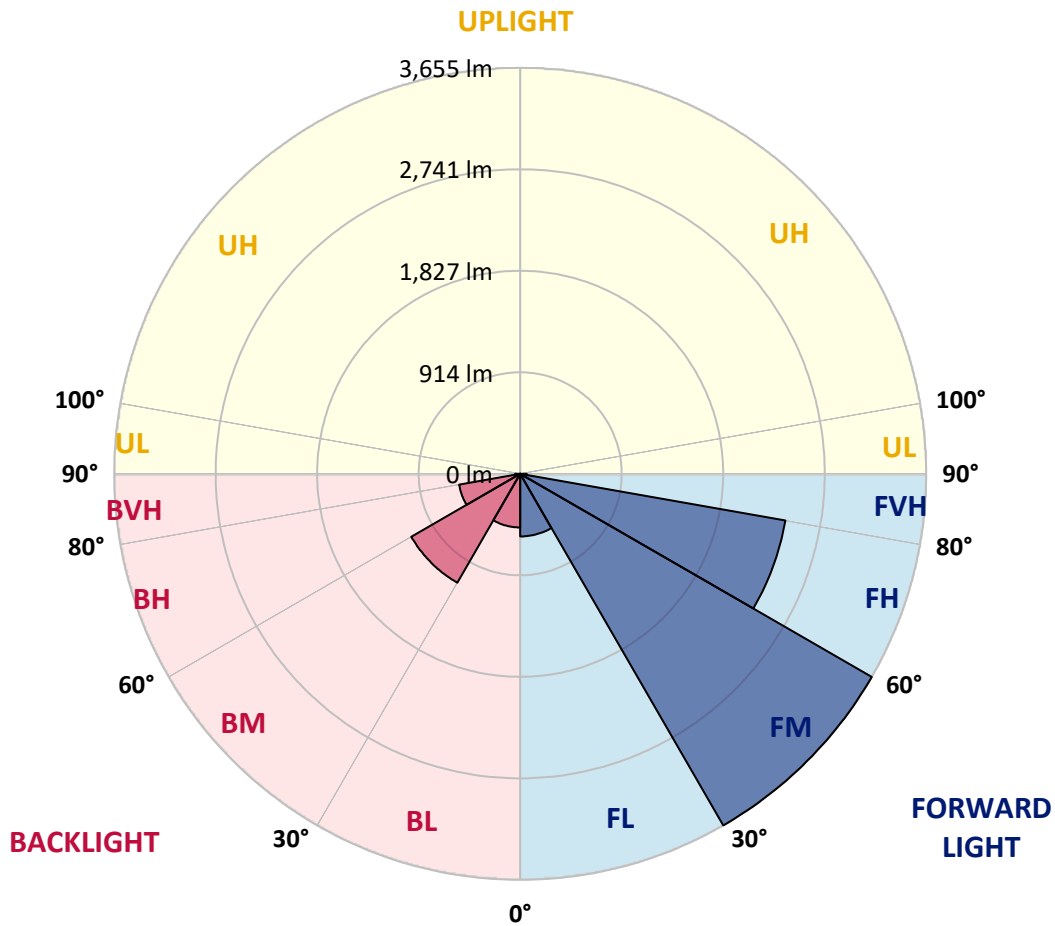
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	563.5	6.3			
FM (30°-60°)	3654.5	41.0			
FH (60°-80°)	2424.2	27.2			G2/5000
FVH (80°-90°)	58.4	0.7			G1/100
BL (0°-30°)	483.0	5.4	B1/500		
BM (30°-60°)	1131.8	12.7	B2/2500		
BH (60°-80°)	558.0	6.3	B2/1000		G2/1000
BVH (80°-90°)	44.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1
2.5°	978.8	984.4	983.0	980.7	980.2	981.2	982.6	984.0	983.5	985.8	989.6
5°	976.0	981.6	981.2	981.2	983.0	986.8	989.1	991.5	989.1	991.9	997.1
7.5°	977.9	982.1	984.0	985.8	990.5	997.6	1003.2	1008.3	1005.5	1008.8	1015.4
10°	1001.8	1005.1	1006.9	1006.9	1010.2	1018.2	1023.8	1033.2	1030.8	1036.0	1044.4
12.5°	1045.4	1048.6	1048.6	1046.8	1049.1	1054.3	1056.1	1066.4	1062.2	1070.7	1079.1
15°	1098.8	1105.3	1100.2	1096.9	1097.8	1103.0	1102.5	1110.5	1106.3	1113.3	1120.8
17.5°	1157.8	1166.2	1157.8	1157.3	1155.5	1161.1	1161.6	1168.6	1161.1	1166.2	1171.4
20°	1227.6	1239.3	1232.3	1234.6	1230.4	1232.8	1235.1	1245.4	1233.7	1237.5	1236.1
22.5°	1326.0	1340.1	1332.6	1341.5	1338.7	1336.8	1336.3	1354.6	1336.3	1337.7	1324.1
25°	1469.4	1486.3	1473.1	1485.3	1485.3	1491.4	1498.4	1521.9	1491.4	1482.5	1447.4
27.5°	1681.2	1698.1	1672.3	1679.8	1677.4	1692.4	1684.9	1743.0	1710.2	1695.7	1625.0
30°	1936.1	1966.1	1917.3	1915.5	1913.1	1937.0	1947.8	1986.2	1952.9	1938.4	1853.1
32.5°	2211.6	2243.0	2184.9	2168.0	2159.1	2173.6	2164.7	2195.7	2172.7	2150.2	2044.8
35°	2503.0	2534.0	2478.7	2445.9	2410.3	2379.8	2347.9	2355.9	2334.4	2300.1	2191.0
37.5°	2778.5	2835.2	2776.7	2741.5	2675.9	2616.4	2527.4	2490.4	2470.2	2438.8	2328.7
40°	3059.2	3091.5	3047.0	3017.0	2945.8	2852.6	2710.1	2631.9	2604.7	2574.3	2481.0
42.5°	3265.8	3296.8	3272.9	3252.3	3196.5	3088.3	2904.1	2806.2	2766.8	2732.6	2653.4
45°	3429.8	3452.8	3437.8	3445.3	3421.4	3316.4	3105.1	2993.1	2952.4	2910.7	2848.4
47.5°	3495.9	3520.3	3544.2	3588.7	3629.4	3552.1	3321.1	3195.6	3152.5	3109.8	3048.4
50°	3488.4	3513.2	3582.6	3677.2	3803.7	3778.0	3548.9	3411.1	3371.3	3322.5	3265.8
52.5°	3428.4	3456.5	3545.6	3703.0	3904.5	3947.1	3780.8	3633.7	3596.2	3538.1	3481.4
55°	3271.0	3287.9	3421.4	3644.4	3928.4	4065.2	4008.0	3870.8	3833.3	3752.2	3690.4
57.5°	2979.1	3003.5	3197.9	3486.5	3868.4	4145.3	4207.6	4120.0	4083.9	3967.3	3902.6
60°	2598.1	2637.0	2859.6	3221.3	3715.7	4144.9	4389.0	4365.1	4335.1	4179.1	4111.6
62.5°	2167.1	2212.1	2426.2	2846.5	3448.6	4027.2	4502.4	4570.3	4554.8	4374.4	4288.2
65°	1664.3	1695.2	1908.4	2361.5	3033.0	3774.7	4515.5	4710.4	4713.2	4523.0	4380.5
67.5°	1108.1	1197.2	1382.2	1772.1	2476.3	3361.9	4400.2	4733.4	4760.5	4574.1	4334.2
70°	540.7	657.9	839.2	1151.7	1772.1	2728.9	4098.9	4545.0	4605.4	4425.1	4057.7
72.5°	224.4	262.4	361.3	568.4	1017.2	1841.4	3493.6	4034.3	4146.3	3920.9	3411.6
75°	151.3	164.0	206.6	291.4	463.4	908.1	2519.4	3008.1	3188.5	2961.3	2420.6
77.5°	116.7	124.6	150.4	203.8	275.5	343.5	1348.5	1812.8	1906.1	1764.6	1259.5
80°	91.8	97.9	112.5	148.5	195.4	183.7	459.7	821.4	875.3	734.2	404.8
82.5°	79.7	82.0	80.6	100.7	129.8	107.3	150.9	303.2	334.5	242.7	132.1
85°	57.6	64.2	67.0	62.3	68.9	54.4	61.8	107.3	118.1	105.4	74.5
87.5°	23.4	34.7	42.6	40.3	25.3	15.5	19.2	31.4	36.1	39.4	24.4
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°	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1	989.1
2.5°	990.1	993.3	995.7	998.5	1000.4	1003.2	1008.8	1012.1	1012.6	1014.9	1014.4
5°	999.0	1003.6	1008.8	1016.3	1024.7	1031.8	1042.5	1050.0	1052.8	1055.2	1054.7
7.5°	1018.2	1024.7	1034.1	1047.2	1059.4	1068.8	1081.9	1090.8	1099.7	1103.0	1103.5
10°	1046.8	1056.1	1069.7	1087.5	1100.6	1112.8	1126.4	1133.9	1142.8	1146.6	1148.4
12.5°	1082.4	1092.2	1110.0	1134.8	1147.0	1155.5	1160.1	1158.3	1160.1	1163.4	1164.4
15°	1123.1	1133.9	1154.1	1180.8	1189.2	1181.7	1171.4	1162.0	1160.6	1161.6	1164.8
17.5°	1171.4	1179.4	1202.8	1225.3	1219.2	1188.3	1165.8	1150.8	1143.3	1140.9	1144.2
20°	1238.9	1238.9	1258.1	1272.1	1231.4	1178.9	1143.7	1119.4	1103.9	1097.4	1096.0
22.5°	1320.9	1313.4	1325.5	1315.7	1229.0	1152.7	1103.9	1061.8	1038.3	1029.0	1027.5
25°	1424.9	1416.0	1412.7	1351.8	1212.2	1110.9	1031.8	980.7	960.1	954.9	955.9
27.5°	1581.8	1559.4	1516.7	1371.5	1181.2	1045.4	947.4	900.1	888.4	888.9	890.3
30°	1790.8	1745.8	1641.4	1374.7	1130.6	952.6	861.2	827.5	821.8	824.2	832.2
32.5°	1984.3	1941.7	1768.8	1359.8	1052.8	861.7	783.9	761.4	753.0	755.8	759.5
35°	2136.2	2124.4	1886.9	1338.7	957.3	776.4	714.5	695.3	678.9	675.2	678.0
37.5°	2279.5	2274.8	1975.4	1309.1	862.6	716.0	658.8	633.5	609.6	596.5	596.9
40°	2437.0	2432.3	2033.5	1263.7	778.7	663.5	608.7	575.4	545.9	522.0	524.3
42.5°	2614.1	2586.4	2061.2	1198.6	707.5	619.0	567.9	522.9	484.0	462.0	463.4
45°	2807.6	2745.3	2060.7	1115.6	647.5	578.2	524.3	460.6	424.5	403.9	403.0
47.5°	3012.8	2897.1	2035.4	1023.8	589.4	533.2	456.8	408.1	384.2	371.6	368.8
50°	3224.6	3039.1	1992.3	918.4	529.9	482.1	414.7	381.4	363.1	351.4	347.2
52.5°	3423.7	3167.9	1940.3	798.9	469.5	432.5	395.9	370.2	350.9	337.8	332.2
55°	3608.8	3279.0	1866.7	676.6	420.3	399.2	387.0	365.5	343.5	328.0	321.9
57.5°	3773.3	3351.1	1739.8	561.8	385.2	376.3	377.7	357.5	332.2	319.1	310.7
60°	3910.1	3404.1	1551.9	455.4	356.6	353.8	363.1	342.5	313.0	298.0	291.4
62.5°	3992.1	3403.1	1321.3	373.0	332.2	333.1	343.9	323.8	293.8	279.7	275.5
65°	3985.1	3319.7	1068.3	319.1	308.8	309.7	323.8	303.2	277.9	269.4	269.0
67.5°	3844.0	3116.4	819.5	283.9	283.0	287.2	303.6	289.1	268.0	267.1	268.5
70°	3462.2	2694.2	590.4	255.8	256.3	262.4	283.9	280.2	262.9	264.7	264.3
72.5°	2776.2	2054.2	396.4	226.3	226.8	236.6	265.2	273.2	257.7	282.5	286.3
75°	1848.9	1281.0	254.9	194.9	195.4	208.0	248.8	259.6	243.6	281.6	283.9
77.5°	888.4	575.9	184.6	164.0	164.0	175.7	215.1	232.4	207.6	218.8	200.5
80°	306.9	216.5	145.3	132.1	129.3	137.3	181.3	201.5	179.0	164.9	154.6
82.5°	120.9	112.5	116.7	102.6	93.2	98.4	141.0	166.3	131.7	119.0	118.5
85°	69.3	73.1	82.5	67.9	53.9	60.4	103.6	119.5	99.3	87.6	89.5
87.5°	18.7	25.8	38.0	35.1	24.4	25.8	49.2	66.1	57.2	44.0	45.5
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)