

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: P960865

Luminaire Tested: **NAV-SB1D-735-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960865
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-735-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10611.8 lumens
Efficiency: N/A
Efficacy: 133.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

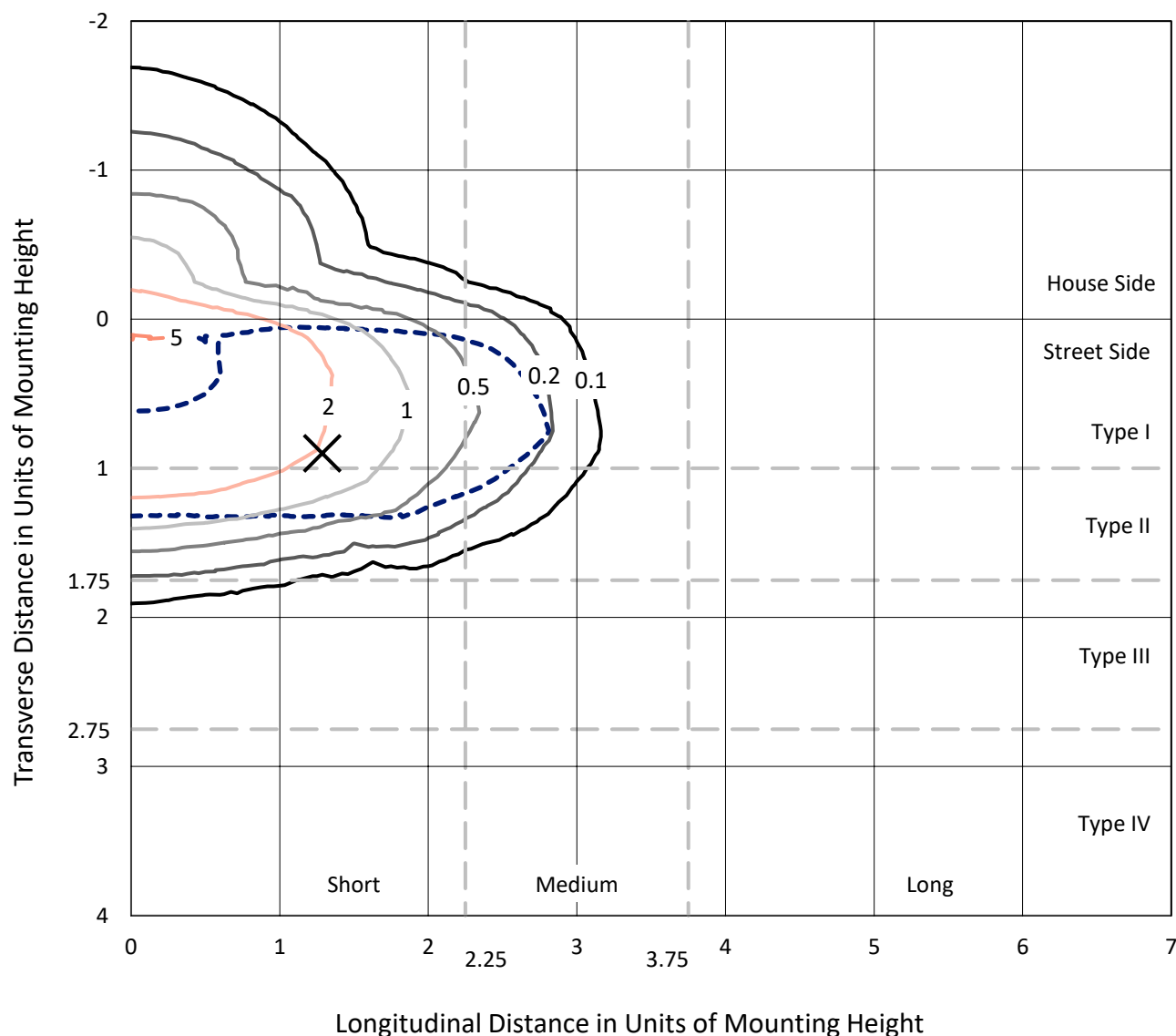
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

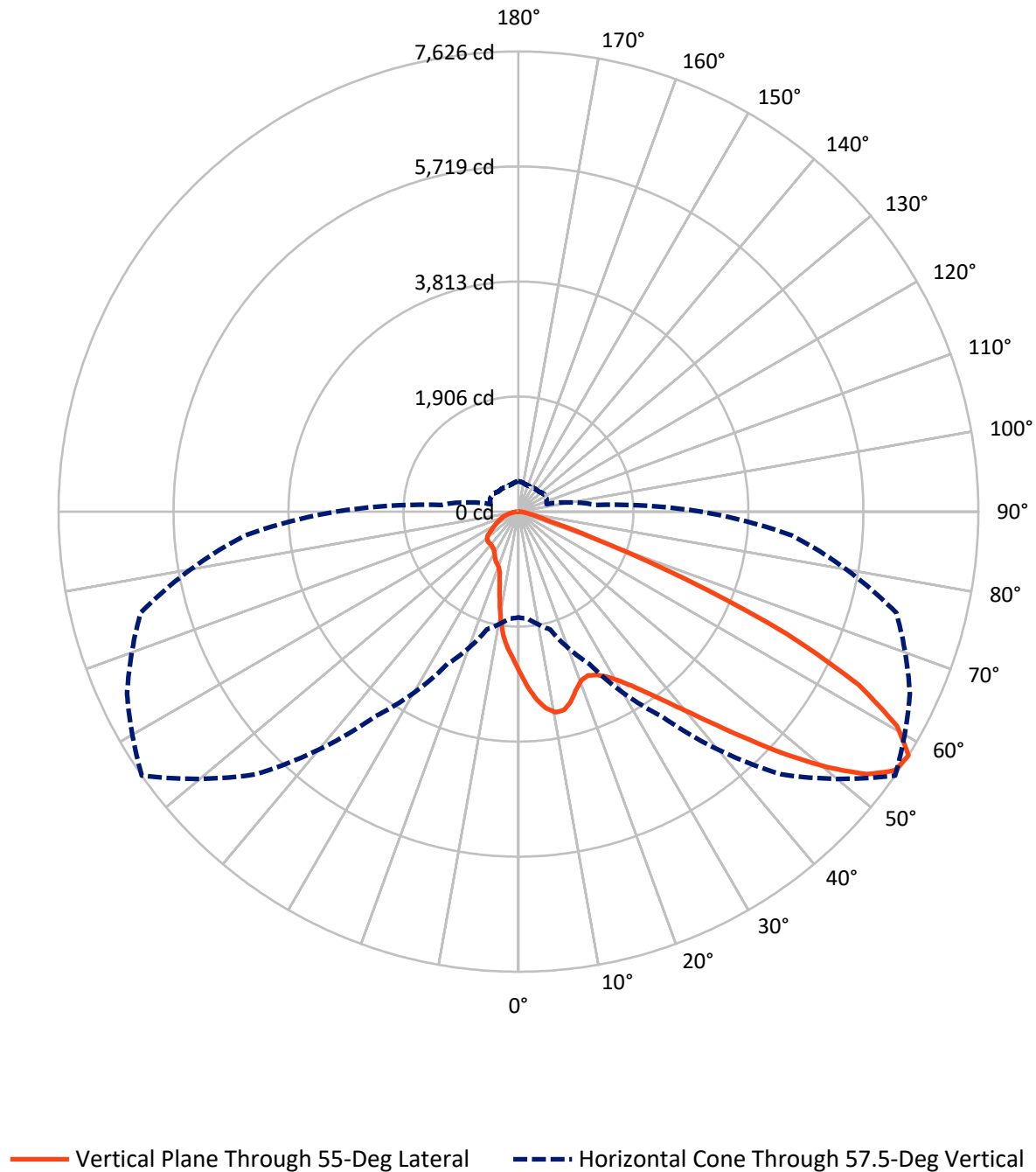
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1920.1	0.0	1920.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	8691.7	0.0	8691.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	10611.8	0.0	10611.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.7	2.3
10°-20°	622.8	5.9
20°-30°	993.8	9.4
30°-40°	1573.4	14.8
40°-50°	2408.2	22.7
50°-60°	2579.4	24.3
60°-70°	1622.7	15.3
70°-80°	479.9	4.5
80°-90°	84.8	0.8
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°	10611.8	100.0
0°-180°	10611.8	100.0

Coefficient of Utilization



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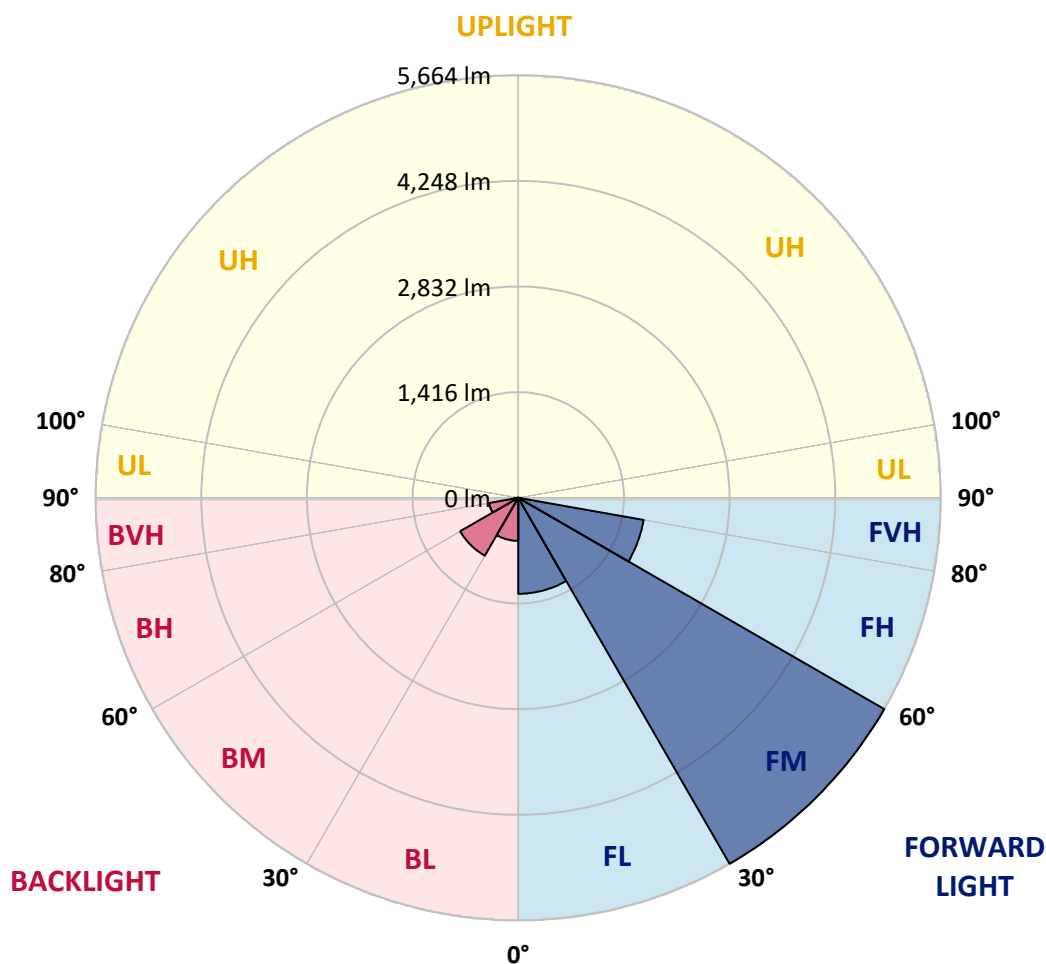
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1286.2	12.1			
FM	(30°-60°)	5663.6	53.4			
FH	(60°-80°)	1706.1	16.1			G1/1800
FVH	(80°-90°)	35.8	0.3			G1/100
BL	(0°-30°)	577.1	5.4	B2/1000		
BM	(30°-60°)	897.5	8.5	B1/1000		
BH	(60°-80°)	396.6	3.7	B1/500		G1/500
BVH	(80°-90°)	49.0	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-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0
2.5°	3050.7	3048.5	3060.5	3019.4	2991.5	2953.5	2903.6	2840.0	2771.4	2699.0	2667.8
5°	3325.5	3306.3	3319.0	3288.2	3257.4	3200.5	3126.4	3022.7	2895.9	2751.7	2674.8
7.5°	3282.2	3269.0	3301.3	3328.8	3351.9	3344.7	3290.4	3181.8	3018.3	2808.7	2697.4
10°	2932.7	2917.9	2963.5	3058.4	3197.7	3319.0	3384.8	3317.3	3143.4	2871.2	2719.3
12.5°	2624.4	2617.3	2647.5	2724.2	2878.9	3111.6	3372.7	3435.8	3273.4	2945.3	2748.9
15°	2492.8	2484.0	2503.2	2542.1	2640.9	2857.6	3263.0	3517.0	3401.3	3030.9	2796.1
17.5°	2463.7	2453.8	2462.0	2482.3	2546.0	2711.1	3097.3	3557.1	3534.5	3126.4	2835.7
20°	2517.4	2509.2	2510.3	2509.2	2553.7	2684.8	2982.1	3541.7	3650.8	3214.2	2874.0
22.5°	2647.5	2633.7	2634.2	2605.2	2629.3	2730.8	2951.9	3500.5	3754.5	3291.0	2903.1
25°	2859.2	2834.5	2839.5	2765.4	2758.8	2834.0	2999.1	3468.7	3857.6	3352.4	2908.5
27.5°	3148.9	3120.9	3106.1	2995.8	2943.2	2980.5	3095.1	3479.7	3955.3	3405.6	2894.9
30°	3510.9	3476.9	3446.8	3290.4	3194.9	3181.2	3244.3	3552.0	4070.5	3461.5	2871.2
32.5°	3954.8	3915.2	3860.4	3653.0	3518.6	3446.8	3437.7	3681.0	4205.5	3532.9	2859.2
35°	4483.0	4431.5	4353.6	4085.3	3915.2	3768.2	3691.9	3866.9	4390.3	3640.4	2873.0
37.5°	5027.2	4969.1	4897.8	4578.5	4369.5	4152.8	4002.4	4119.3	4636.6	3786.3	2909.2
40°	5529.2	5463.9	5397.5	5113.3	4888.9	4627.9	4382.6	4438.6	4937.8	3960.8	2970.6
42.5°	5825.4	5777.1	5751.9	5598.2	5424.9	5160.0	4855.5	4817.1	5276.3	4161.5	3040.8
45°	5812.3	5792.5	5870.4	5934.0	5892.8	5745.8	5409.5	5235.7	5615.9	4335.4	3105.5
47.5°	5501.7	5514.9	5688.7	6046.5	6203.9	6280.7	6040.4	5646.5	5911.0	4465.4	3134.6
50°	4656.9	4667.8	5070.6	5841.9	6284.0	6716.8	6666.4	6047.6	6139.7	4545.1	3128.0
52.5°	3988.2	3995.3	4168.2	5235.1	6019.6	6936.3	7230.4	6425.5	6307.0	4567.0	3091.3
55°	3004.1	3028.8	3222.4	4107.3	5331.6	6762.3	7573.7	6815.0	6412.9	4569.1	3052.9
57.5°	1754.9	1781.8	2021.0	2787.9	4144.0	6156.2	7625.8	7160.6	6484.8	4551.6	3029.8
60°	859.7	871.1	975.4	1465.2	2555.3	4988.3	7206.8	7327.9	6524.8	4542.3	3028.8
62.5°	579.3	577.7	582.0	723.0	1259.0	3204.9	6333.4	7035.0	6503.4	4506.6	3017.7
65°	498.2	492.1	475.6	507.5	652.3	1465.9	4893.3	6160.6	6340.5	4417.1	2942.6
67.5°	430.6	431.2	431.7	421.9	465.8	676.4	2990.3	4852.8	5755.7	3993.7	2652.9
70°	356.6	361.5	363.7	363.7	379.7	443.8	1276.5	3326.0	4540.0	3131.3	2136.7
72.5°	324.7	314.4	315.4	310.0	310.0	337.9	514.0	1885.5	2860.3	1761.5	1304.0
75°	265.0	271.5	272.6	268.8	256.1	257.8	305.0	791.1	1223.8	730.7	644.6
77.5°	228.8	228.8	230.9	228.2	218.3	193.1	203.6	306.7	416.4	299.5	322.1
80°	183.8	183.3	192.6	198.0	182.7	142.7	130.0	169.5	184.9	131.6	167.3
82.5°	89.4	94.9	132.2	150.9	138.8	103.1	79.5	105.4	98.7	58.1	75.1
85°	52.1	49.4	59.2	83.9	79.5	57.1	38.4	54.8	51.6	29.6	30.1
87.5°	16.5	15.4	12.1	28.5	23.1	15.9	10.5	15.9	14.2	6.6	6.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0	2659.0
2.5°	2628.8	2564.0	2499.9	2441.2	2405.6	2382.5	2359.4	2333.7	2323.8	2309.0
5°	2602.5	2477.4	2366.0	2270.1	2182.8	2114.3	2045.1	1989.1	1963.9	1980.9
7.5°	2587.1	2406.1	2234.4	2058.3	1888.8	1753.3	1635.3	1552.5	1515.2	1524.5
10°	2573.4	2325.4	2063.7	1785.7	1542.1	1374.2	1253.5	1190.4	1166.9	1171.8
12.5°	2560.8	2234.9	1858.0	1492.2	1233.2	1122.4	1087.8	1088.3	1092.8	1096.0
15°	2558.6	2125.7	1628.2	1235.4	1066.4	1059.3	1096.6	1120.2	1132.8	1136.6
17.5°	2555.3	1995.2	1393.9	1060.4	1025.8	1074.1	1108.6	1124.0	1134.0	1134.5
20°	2542.1	1829.5	1177.8	977.0	1017.1	1058.7	1080.1	1092.2	1100.4	1103.2
22.5°	2501.5	1645.2	1009.4	939.7	982.0	1015.5	1040.7	1054.4	1059.3	1062.6
25°	2428.5	1438.9	893.1	904.0	933.2	975.4	995.7	998.5	996.8	1001.7
27.5°	2333.1	1217.8	820.7	855.8	893.1	929.3	940.2	938.6	935.3	940.8
30°	2217.9	1019.3	774.6	801.4	852.5	885.4	895.3	891.4	884.9	890.9
32.5°	2096.1	856.9	736.8	763.6	819.1	851.4	861.3	857.4	852.5	857.4
35°	1982.6	743.3	701.6	738.4	792.7	824.5	837.1	837.7	837.7	843.7
37.5°	1878.3	676.9	672.6	722.5	774.6	803.1	821.2	822.4	798.8	800.4
40°	1781.8	648.9	659.4	712.1	757.1	784.4	785.6	724.2	680.8	679.7
42.5°	1702.8	643.5	663.3	710.9	744.5	745.5	668.2	620.4	608.3	609.0
45°	1628.7	641.9	672.0	710.9	725.8	644.0	591.9	579.3	580.4	584.8
47.5°	1545.9	635.3	673.6	701.1	672.0	572.8	557.4	551.9	549.7	550.7
50°	1455.4	611.7	652.8	681.3	579.8	542.0	522.8	521.1	523.9	525.5
52.5°	1360.0	573.3	617.2	645.6	537.6	515.2	493.7	497.5	509.6	513.4
55°	1297.4	528.3	570.0	574.4	508.0	489.8	471.8	480.5	503.1	510.1
57.5°	1280.9	480.5	516.2	511.3	470.2	467.9	456.9	464.6	493.1	503.6
60°	1276.0	437.8	463.5	459.7	433.4	443.8	441.1	444.8	454.8	458.1
62.5°	1237.6	403.7	416.4	410.9	400.5	418.6	425.2	417.0	424.6	428.4
65°	1140.0	376.3	370.3	366.4	370.8	387.3	400.5	384.0	391.1	402.1
67.5°	978.7	339.1	322.6	327.0	340.7	349.4	366.4	347.8	353.8	372.5
70°	791.6	291.8	277.1	289.7	302.8	320.9	323.7	311.1	325.3	346.1
72.5°	560.1	244.2	233.7	259.5	263.8	287.4	281.5	275.4	295.1	302.3
75°	388.4	196.9	191.0	210.6	226.5	246.8	242.5	249.6	291.3	294.6
77.5°	245.8	153.0	149.2	161.8	183.8	206.2	213.4	294.6	497.5	517.3
80°	142.7	114.1	109.7	119.6	138.8	159.6	205.7	361.5	328.1	324.2
82.5°	79.5	78.4	73.0	75.7	92.7	115.2	290.8	254.5	206.8	213.4
85°	37.3	46.1	39.5	37.8	52.1	135.0	194.2	145.3	96.6	94.4
87.5°	9.8	8.8	8.8	9.8	21.9	116.3	77.4	62.0	36.8	35.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)