

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: P961019

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961019
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7994 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - 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



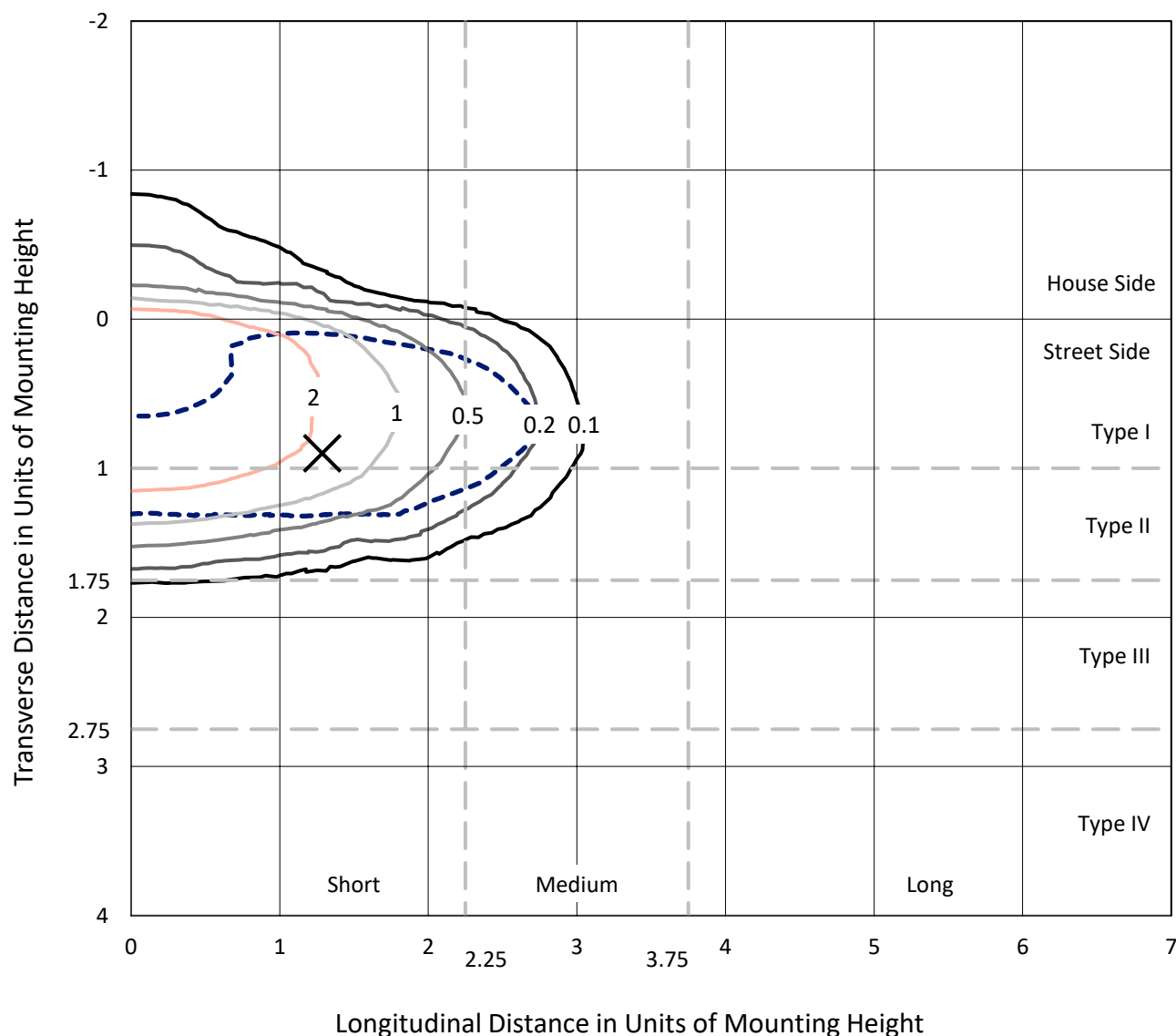
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

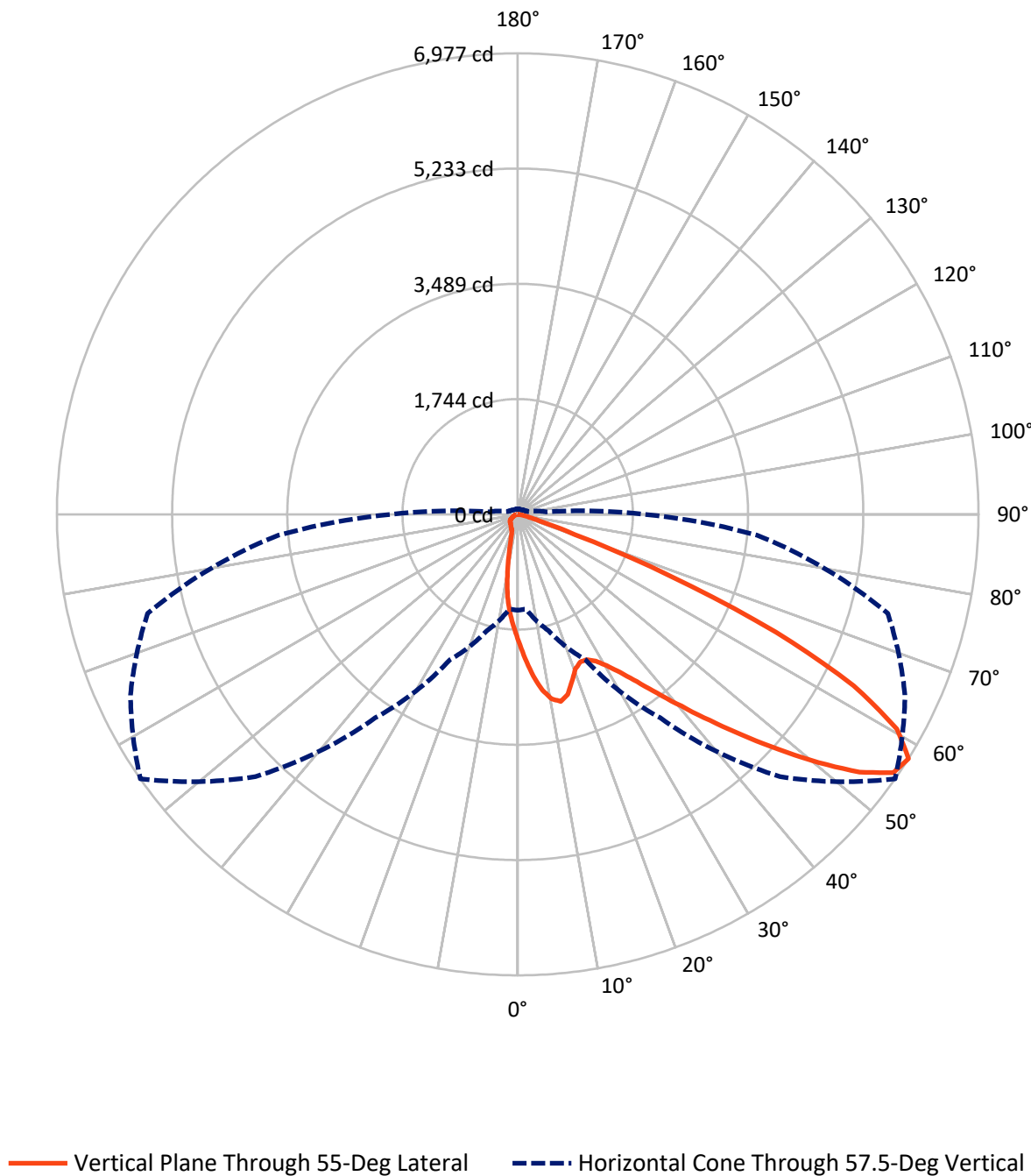


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc

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	624.3	0.0	624.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	7369.7	0.0	7369.7
	% Fixture	92.2	0.0	92.2
Total	Lumens	7994.0	0.0	7994.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.2	2.2
10°-20°	432.9	5.4
20°-30°	692.7	8.7
30°-40°	1172.5	14.7
40°-50°	1924.9	24.1
50°-60°	2115.6	26.5
60°-70°	1213.5	15.2
70°-80°	248.0	3.1
80°-90°	14.6	0.2
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°	7994.0	100.0
0°-180°	7994.0	100.0

Coefficient of Utilization



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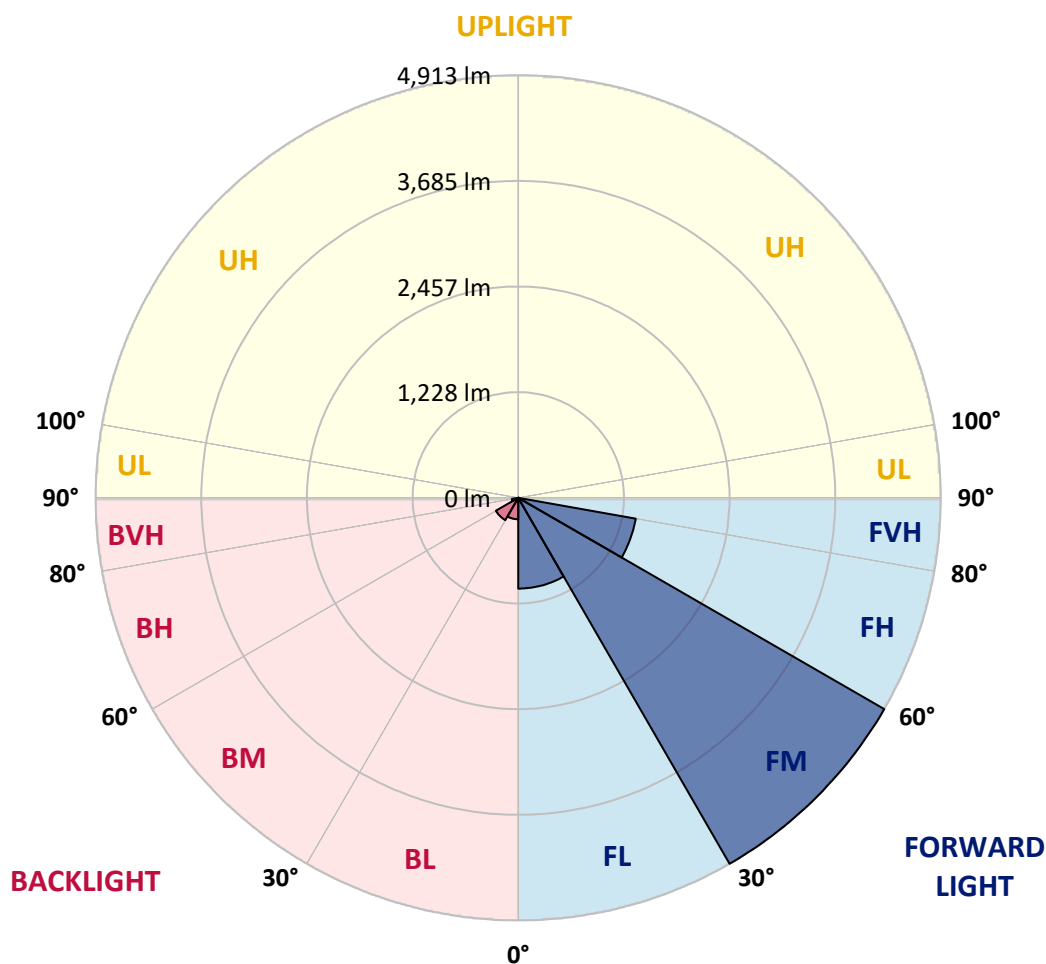
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1055.6	13.2			
FM	(30°-60°)	4913.2	61.5			
FH	(60°-80°)	1387.2	17.4			G1/1800
FVH	(80°-90°)	13.6	0.2			G1/100
BL	(0°-30°)	249.2	3.1	B1/500		
BM	(30°-60°)	299.8	3.8	B1/1000		
BH	(60°-80°)	74.2	0.9	B0/110		G0/110
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-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4
2.5°	2390.2	2360.2	2355.7	2349.8	2292.6	2249.7	2187.6	2119.6	2043.1	1965.3	1930.8
5°	2761.4	2737.7	2733.3	2705.7	2640.6	2567.6	2457.2	2317.7	2175.3	2007.7	1935.7
7.5°	2833.3	2828.9	2849.1	2848.2	2839.2	2781.5	2688.4	2522.3	2308.4	2059.9	1948.5
10°	2512.5	2523.8	2583.9	2636.6	2779.1	2861.9	2841.7	2704.7	2445.4	2119.6	1962.9
12.5°	2220.1	2206.8	2249.7	2309.3	2475.0	2721.5	2905.3	2857.0	2602.2	2187.1	1984.0
15°	2036.8	2031.3	2055.5	2083.1	2209.3	2457.7	2831.4	2980.7	2752.9	2267.0	2016.1
17.5°	1978.1	1973.6	1981.0	1988.0	2069.8	2262.1	2655.4	3056.7	2897.4	2358.1	2051.5
20°	2025.9	2020.0	2019.0	2013.6	2047.6	2178.7	2496.2	3062.1	3027.0	2440.9	2082.1
22.5°	2165.4	2158.5	2134.4	2112.6	2115.6	2190.0	2425.1	3007.9	3124.6	2518.3	2101.4
25°	2418.3	2406.9	2356.7	2283.7	2237.4	2268.9	2436.0	2936.3	3217.8	2579.0	2092.0
27.5°	2734.7	2719.9	2655.4	2546.9	2440.9	2402.5	2514.4	2887.0	3295.2	2625.3	2071.7
30°	3044.8	3025.6	2961.9	2877.7	2722.9	2601.7	2655.9	2908.7	3387.4	2673.6	2045.2
32.5°	3379.5	3361.3	3276.9	3172.5	3044.4	2881.2	2849.6	3014.7	3500.3	2741.2	2026.4
35°	3803.0	3774.4	3654.5	3512.1	3376.0	3210.9	3111.8	3197.6	3650.6	2844.2	2036.8
37.5°	4285.0	4246.6	4117.4	3920.7	3743.3	3558.4	3431.3	3449.0	3870.9	2982.2	2068.8
40°	4739.5	4704.4	4585.2	4399.8	4177.1	3952.8	3817.2	3777.7	4175.0	3150.2	2125.0
42.5°	5012.0	4980.5	4930.2	4851.8	4664.1	4435.4	4264.3	4179.0	4534.9	3351.4	2193.5
45°	5027.3	4999.7	5067.3	5158.4	5121.5	4969.2	4760.7	4604.4	4896.2	3540.1	2264.5
47.5°	4782.9	4764.1	4969.2	5287.6	5446.3	5510.4	5318.2	4994.3	5194.5	3675.8	2293.5
50°	4116.4	4109.5	4531.4	5116.1	5570.1	5984.6	5906.3	5357.1	5425.6	3745.8	2266.0
52.5°	3569.3	3544.1	3790.1	4567.0	5390.2	6234.0	6481.0	5713.0	5587.3	3759.1	2201.4
55°	2707.1	2685.0	2993.5	3648.2	4809.9	6145.3	6901.4	6080.2	5703.1	3725.1	2085.6
57.5°	1452.1	1438.4	1828.3	2428.1	3760.0	5612.9	6977.4	6468.7	5800.8	3634.9	1923.4
60°	565.4	562.9	708.8	1178.1	2285.2	4566.5	6594.3	6701.8	5861.9	3524.0	1787.8
62.5°	342.0	349.5	373.1	528.9	1009.5	2836.8	5711.5	6436.6	5902.8	3422.4	1676.0
65°	282.9	283.4	286.4	363.3	483.6	1186.9	4299.8	5564.1	5801.7	3241.5	1517.2
67.5°	242.5	246.9	258.3	288.3	341.1	520.5	2475.5	4310.1	5187.0	2820.5	1269.8
70°	191.3	197.2	211.5	237.1	263.2	325.8	914.9	2867.8	3962.6	2126.0	960.2
72.5°	161.2	160.7	168.1	192.7	209.0	229.2	352.0	1606.9	2303.0	1015.0	475.2
75°	124.7	129.7	139.0	161.2	171.1	166.2	190.8	587.1	825.1	307.6	161.6
77.5°	97.6	101.6	109.9	131.6	141.4	117.8	109.9	210.0	265.2	110.4	73.0
80°	43.9	47.4	74.9	97.1	115.3	81.3	59.7	107.4	117.8	50.3	37.0
82.5°	7.9	13.3	43.9	51.2	59.1	52.8	31.1	55.7	57.7	20.2	12.8
85°	0.5	1.0	15.3	18.8	23.7	17.2	9.3	22.1	19.3	6.9	4.9
87.5°	0.0	0.0	0.0	0.5	0.5	2.5	3.0	3.9	3.0	2.5	1.9
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°	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4	1926.4
2.5°	1895.3	1825.3	1757.3	1701.6	1669.0	1613.9	1577.4	1571.4	1556.2	1569.5
5°	1858.8	1733.6	1606.9	1493.5	1400.4	1280.1	1190.4	1152.4	1119.4	1130.8
7.5°	1841.6	1643.9	1446.7	1253.1	1053.9	861.6	718.7	659.1	613.7	620.1
10°	1818.4	1550.7	1241.7	946.0	679.3	489.4	390.9	354.4	334.3	334.7
12.5°	1800.6	1439.3	1003.6	641.3	413.6	312.5	282.0	273.1	267.1	267.6
15°	1791.8	1308.2	768.4	427.3	295.7	264.7	257.3	253.4	249.4	249.0
17.5°	1777.0	1162.4	562.4	312.0	258.8	247.9	241.5	237.1	232.2	231.1
20°	1754.8	996.7	411.1	263.7	242.5	234.1	225.3	219.4	213.4	212.5
22.5°	1713.9	821.7	316.0	244.0	230.7	221.3	210.4	203.6	197.6	196.7
25°	1637.9	657.5	266.2	231.6	220.4	209.0	197.2	187.8	182.3	181.4
27.5°	1541.9	516.6	241.5	220.4	207.0	196.7	183.4	174.5	169.5	168.6
30°	1428.5	397.8	227.2	207.6	191.3	182.3	170.6	163.2	160.2	160.2
32.5°	1306.3	318.0	221.3	194.7	177.4	167.6	158.3	155.3	154.3	153.8
35°	1191.4	276.0	218.3	184.4	165.1	155.8	151.8	152.3	154.3	154.3
37.5°	1089.4	262.7	216.9	176.9	154.3	145.9	148.4	152.8	150.9	150.9
40°	997.2	264.2	215.9	171.6	145.4	140.5	145.4	142.0	137.0	136.5
42.5°	926.7	276.5	213.9	167.1	140.0	136.5	134.6	129.1	128.6	129.7
45°	875.5	287.4	213.4	165.1	134.1	127.7	125.2	119.8	129.7	132.1
47.5°	814.8	287.4	213.4	158.3	124.2	121.8	117.8	111.9	121.8	124.2
50°	736.5	269.2	205.1	150.4	116.3	114.9	107.9	100.6	98.6	100.0
52.5°	637.3	236.2	183.9	139.5	108.4	105.5	97.1	91.6	90.2	90.2
55°	524.5	197.6	155.3	123.7	100.0	94.6	88.8	86.3	84.8	83.8
57.5°	426.4	162.2	124.7	109.9	92.1	85.3	83.3	80.4	77.9	76.4
60°	349.9	127.7	103.0	97.6	84.3	77.9	77.4	73.5	67.0	66.0
62.5°	270.1	93.7	86.7	84.8	76.4	70.9	70.0	62.1	52.3	50.3
65°	190.8	73.0	70.0	74.4	68.1	63.1	60.7	48.8	38.4	37.0
67.5°	134.1	61.1	55.2	65.1	59.1	52.8	51.2	41.4	32.1	31.1
70°	95.6	49.8	45.3	55.7	47.4	46.3	43.4	34.5	26.1	25.1
72.5°	67.5	37.9	35.0	48.3	32.5	40.0	35.5	26.6	19.7	18.8
75°	49.8	27.1	24.6	28.1	23.7	30.0	25.1	17.7	12.3	11.8
77.5°	36.5	17.2	14.8	13.8	13.8	18.8	13.8	7.4	5.4	4.9
80°	25.6	7.9	6.9	5.9	5.4	4.4	1.9	1.0	0.5	0.5
82.5°	15.3	3.5	3.5	2.5	1.4	0.0	0.0	0.0	0.0	0.0
85°	3.5	1.4	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	0.5	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

(END OF REPORT)