

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: P882794

Luminaire Tested: **NAV-SB2D-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17989 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

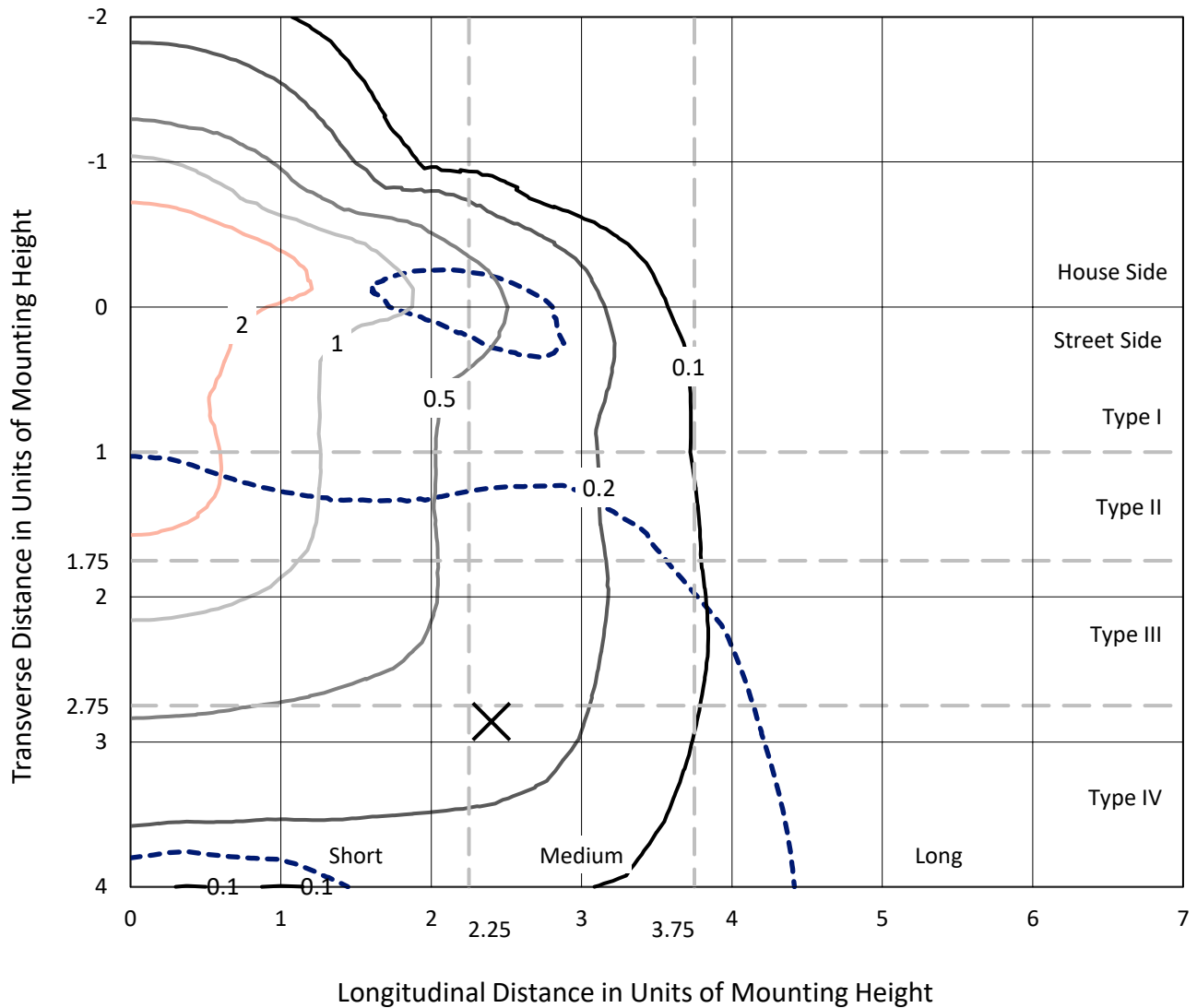
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882794
 CATALOG NUMBER: NAV-SB2D-830-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

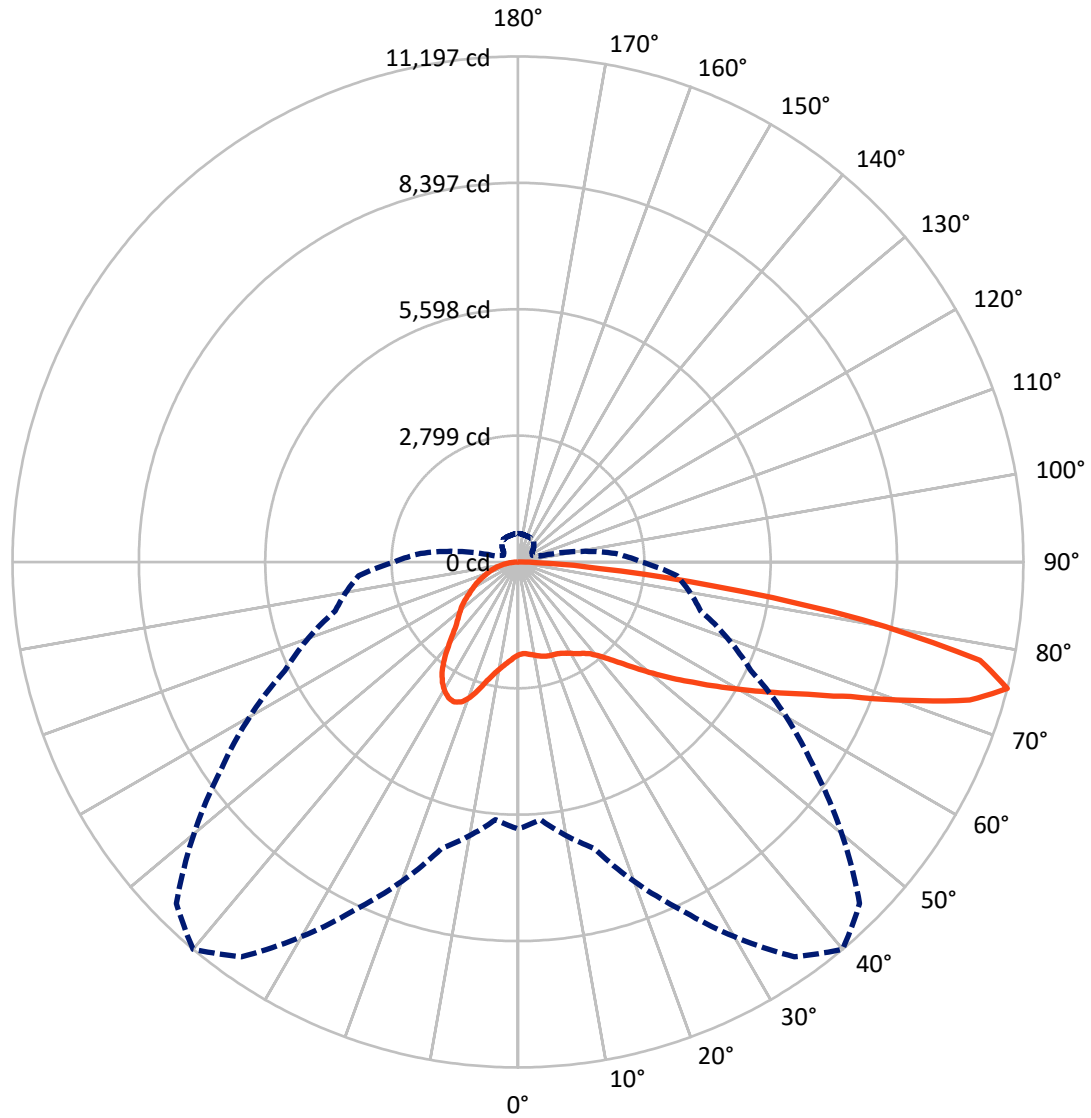
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Medium - N/A

REPORT NUMBER: P882794
CATALOG NUMBER: NAV-SB2D-830-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P882794

CATALOG NUMBER: NAV-SB2D-830-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5573.6	0.0	5573.6
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	12415.4	0.0	12415.4
	% Fixture	69.0	0.0	69.0
Total	Lumens	17989.0	0.0	17989.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	1.1
10°-20°	689.4	3.8
20°-30°	1258.8	7.0
30°-40°	1785.3	9.9
40°-50°	2410.7	13.4
50°-60°	3243.1	18.0
60°-70°	4116.2	22.9
70°-80°	3735.7	20.8
80°-90°	544.5	3.0
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°	17989.0	100.0
0°-180°	17989.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882794

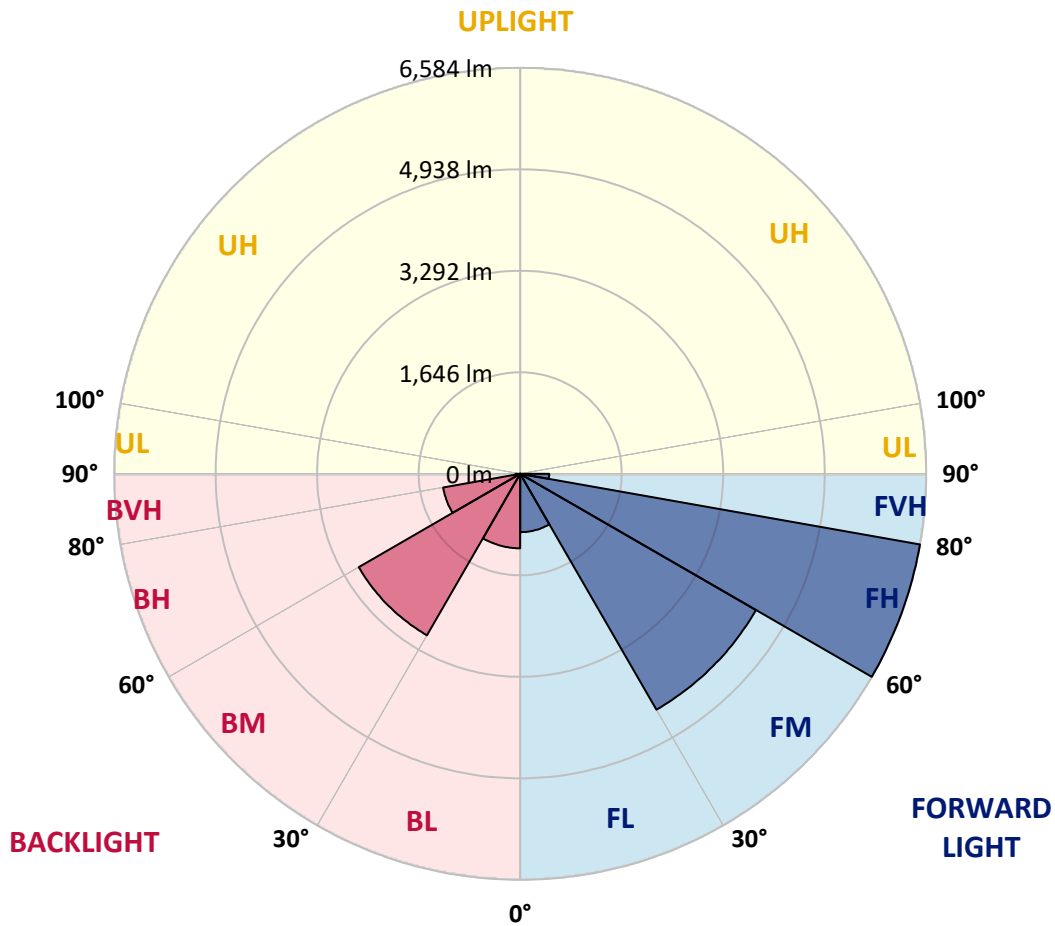
CATALOG NUMBER: NAV-SB2D-830-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	946.2	5.3			
FM	(30°-60°)	4415.9	24.5			
FH	(60°-80°)	6583.7	36.6			G3/7500
FVH	(80°-90°)	469.6	2.6			G3/500
BL	(0°-30°)	1207.3	6.7	B3/2500		
BM	(30°-60°)	3023.2	16.8	B3/5000		
BH	(60°-80°)	1268.2	7.0	B3/2500		G3/2500
BVH	(80°-90°)	75.0	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Medium



REPORT NUMBER: P882794

CATALOG NUMBER: NAV-SB2D-830-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1
2.5°	2025.6	2037.0	2034.2	2030.4	2030.4	2031.3	2030.4	2037.0	2043.7	2050.4	2060.9
5°	2046.6	2058.0	2052.3	2047.5	2043.7	2042.8	2039.9	2038.9	2042.8	2051.3	2065.7
7.5°	2087.6	2099.0	2090.5	2081.9	2074.2	2070.4	2066.6	2060.9	2058.0	2062.8	2082.8
10°	2133.4	2144.8	2134.3	2119.1	2106.7	2101.9	2098.1	2092.4	2088.6	2091.4	2113.4
12.5°	2179.2	2190.6	2176.3	2155.3	2139.1	2136.3	2131.5	2129.6	2128.6	2127.7	2149.6
15°	2222.1	2231.7	2213.5	2188.7	2171.6	2166.8	2162.0	2164.9	2169.7	2175.4	2200.2
17.5°	2255.5	2265.1	2238.3	2205.9	2189.7	2187.8	2184.9	2194.5	2207.8	2222.1	2252.7
20°	2286.1	2295.6	2261.2	2217.4	2198.3	2198.3	2199.2	2219.3	2238.3	2259.3	2301.3
22.5°	2329.0	2336.6	2294.6	2234.5	2206.9	2208.8	2216.4	2236.4	2260.3	2288.9	2347.1
25°	2392.9	2398.6	2347.1	2267.0	2235.5	2241.2	2247.9	2257.4	2280.3	2313.7	2392.0
27.5°	2496.0	2500.7	2433.0	2324.2	2276.5	2286.1	2295.6	2288.9	2299.4	2328.0	2428.2
30°	2641.0	2643.8	2558.0	2413.9	2346.2	2350.9	2352.8	2325.2	2305.1	2328.0	2454.0
32.5°	2812.7	2811.8	2709.7	2522.7	2425.4	2420.6	2404.4	2350.0	2303.2	2323.3	2476.9
35°	3078.9	3068.4	2936.8	2675.3	2515.0	2485.5	2447.3	2377.6	2312.8	2318.5	2496.9
37.5°	3519.7	3487.3	3305.0	2925.3	2648.6	2573.2	2516.9	2422.5	2333.8	2316.6	2520.8
40°	4016.8	3975.8	3775.4	3267.8	2849.0	2727.8	2637.2	2486.4	2368.1	2325.2	2556.1
42.5°	4606.5	4548.3	4332.6	3671.4	3102.8	2927.2	2790.8	2567.5	2418.7	2352.8	2603.8
45°	5330.6	5253.3	4948.0	4126.5	3422.4	3188.6	3006.4	2690.6	2496.0	2406.3	2675.3
47.5°	6062.4	6081.5	5647.4	4647.5	3806.0	3511.1	3276.4	2875.7	2608.5	2492.1	2790.8
50°	6840.0	6853.4	6342.9	5224.7	4241.0	3875.6	3579.8	3082.7	2765.0	2614.3	2963.5
52.5°	7446.8	7448.8	6974.6	5828.7	4694.2	4276.3	3907.1	3319.4	2946.3	2776.5	3193.4
55°	7826.6	7821.8	7417.3	6400.2	5215.2	4697.1	4269.7	3588.4	3167.7	2967.3	3482.5
57.5°	8102.3	8088.0	7722.6	6891.6	5770.5	5194.2	4679.9	3893.7	3429.1	3194.4	3863.2
60°	8207.3	8198.7	7929.6	7316.1	6354.4	5743.8	5153.2	4235.3	3725.8	3462.5	4352.7
62.5°	8247.3	8263.6	8132.9	7727.4	6979.3	6352.5	5673.2	4643.7	4059.7	3765.9	4868.8
65°	8388.6	8418.1	8391.4	8265.5	7685.4	7065.2	6363.0	5129.3	4424.2	4091.2	5407.9
67.5°	8668.1	8697.7	8709.1	8909.5	8547.9	7953.5	7223.6	5734.2	4850.7	4429.0	5813.4
70°	8661.4	8652.8	8855.1	9421.9	9627.9	9183.3	8383.8	6478.4	5359.2	4709.5	5864.9
72.5°	7883.8	7815.1	8293.1	9416.1	10526.7	10467.6	9800.6	7438.3	5798.1	4743.8	5089.2
75°	5914.5	5731.4	6575.7	8485.9	10676.5	11196.5	10701.3	8033.6	5694.1	4191.4	3541.7
77.5°	2529.4	2345.2	3340.3	6281.9	9555.4	10466.6	9875.1	7008.9	4545.4	2771.7	1739.3
80°	662.2	661.2	1009.5	2848.0	6498.5	7729.3	6780.9	4526.3	2597.1	990.4	479.9
82.5°	273.8	267.2	371.1	1107.7	3175.3	4337.4	3539.8	2018.9	937.9	268.1	159.3
85°	102.1	101.1	180.3	382.6	1120.1	1789.0	1294.7	516.2	233.8	130.7	71.6
87.5°	28.6	27.7	39.1	132.6	272.9	414.1	221.4	84.9	65.8	51.5	21.0
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: P882794

CATALOG NUMBER: NAV-SB2D-830-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1	2057.1
2.5°	2063.7	2068.5	2077.1	2083.8	2092.4	2101.9	2115.3	2123.9	2132.4	2138.2	2134.3
5°	2072.3	2082.8	2104.8	2126.7	2152.5	2176.3	2204.0	2224.0	2240.3	2245.0	2246.9
7.5°	2091.4	2108.6	2145.8	2183.0	2224.0	2263.2	2303.2	2337.6	2365.2	2375.7	2376.7
10°	2124.8	2147.7	2200.2	2252.7	2307.0	2367.2	2418.7	2468.3	2507.4	2523.6	2524.6
12.5°	2166.8	2195.4	2264.1	2336.6	2412.0	2495.0	2561.8	2622.9	2671.5	2693.5	2693.5
15°	2221.2	2258.4	2346.2	2443.5	2554.2	2669.6	2754.5	2822.3	2876.6	2903.4	2901.5
17.5°	2280.3	2329.9	2440.6	2587.6	2745.9	2897.6	2996.9	3046.5	3102.8	3128.5	3127.6
20°	2337.6	2398.6	2557.0	2770.7	2981.6	3142.8	3223.0	3236.3	3240.2	3243.0	3250.7
22.5°	2396.7	2478.8	2703.0	3001.6	3227.8	3339.4	3350.8	3293.6	3213.5	3176.2	3186.7
25°	2461.6	2570.4	2893.8	3256.4	3439.6	3452.9	3365.2	3225.9	3074.1	3004.5	3015.0
27.5°	2524.6	2676.3	3122.8	3499.7	3592.2	3474.9	3286.0	3088.5	2905.3	2831.8	2840.4
30°	2587.6	2797.5	3375.6	3712.5	3661.9	3420.5	3161.0	2940.6	2756.4	2679.1	2687.7
32.5°	2651.5	2938.7	3666.7	3866.1	3649.5	3305.0	3005.5	2774.6	2612.4	2531.3	2541.8
35°	2724.0	3112.3	3942.4	3950.0	3566.5	3135.2	2800.3	2576.1	2434.9	2370.0	2384.3
37.5°	2818.4	3332.7	4185.7	3971.0	3421.4	2886.2	2545.6	2341.4	2225.0	2195.4	2216.4
40°	2935.8	3598.0	4371.7	3937.6	3206.8	2583.7	2267.0	2103.8	2038.0	2044.7	2067.6
42.5°	3088.5	3894.7	4502.5	3851.8	2908.1	2271.7	2022.7	1950.2	1981.7	2008.4	2033.2
45°	3286.9	4202.9	4583.6	3705.8	2570.4	2007.5	1878.6	1895.8	1919.7	1922.5	1941.6
47.5°	3540.7	4514.9	4637.0	3485.4	2225.9	1821.4	1787.1	1790.9	1786.1	1766.1	1781.3
50°	3857.5	4818.3	4684.7	3193.4	1933.0	1705.0	1659.2	1645.8	1580.0	1515.1	1523.7
52.5°	4218.1	5096.9	4704.7	2830.9	1705.0	1607.7	1533.3	1449.3	1326.2	1306.2	1312.9
55°	4618.9	5354.5	4653.2	2385.3	1513.2	1482.7	1370.1	1269.0	1255.6	1238.4	1241.3
57.5°	5097.8	5632.1	4548.3	1888.2	1316.7	1336.7	1227.0	1238.4	1214.6	1187.9	1183.1
60°	5621.6	5919.3	4364.1	1435.0	1113.4	1154.5	1189.8	1188.8	1182.1	1160.2	1152.6
62.5°	6093.0	6108.2	4001.5	1099.1	935.0	1013.3	1109.6	1108.7	1103.0	1090.6	1085.8
65°	6373.5	6079.6	3396.6	865.4	788.1	896.9	1000.9	1008.5	1009.5	1008.5	1008.5
67.5°	6323.9	5744.7	2566.6	688.9	666.9	778.6	893.0	903.5	911.2	913.1	915.0
70°	5762.8	5009.1	1673.5	549.6	559.1	674.6	791.0	801.5	808.1	815.8	819.6
72.5°	4492.0	3682.9	957.9	444.6	464.7	584.9	689.8	702.2	706.0	720.4	726.1
75°	2737.3	2165.8	517.1	350.2	381.6	500.0	589.6	604.0	610.6	627.8	629.7
77.5°	1301.4	937.9	294.8	272.9	307.2	408.4	498.0	514.3	496.1	505.7	498.0
80°	439.8	348.3	186.1	208.0	234.7	318.7	398.8	415.0	376.9	375.0	371.1
82.5°	153.6	141.2	118.3	138.3	151.7	228.0	301.5	322.5	280.5	279.6	266.2
85°	60.1	57.2	65.8	75.4	90.6	140.3	198.5	209.0	172.7	139.3	137.4
87.5°	12.4	13.4	16.2	17.2	27.7	48.7	71.6	87.8	69.7	59.2	54.4
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)