

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: INVUE

Report Number: P596788

Luminaire Tested: **MSA-SA4C-827-U-SL2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596788
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-827-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17572 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

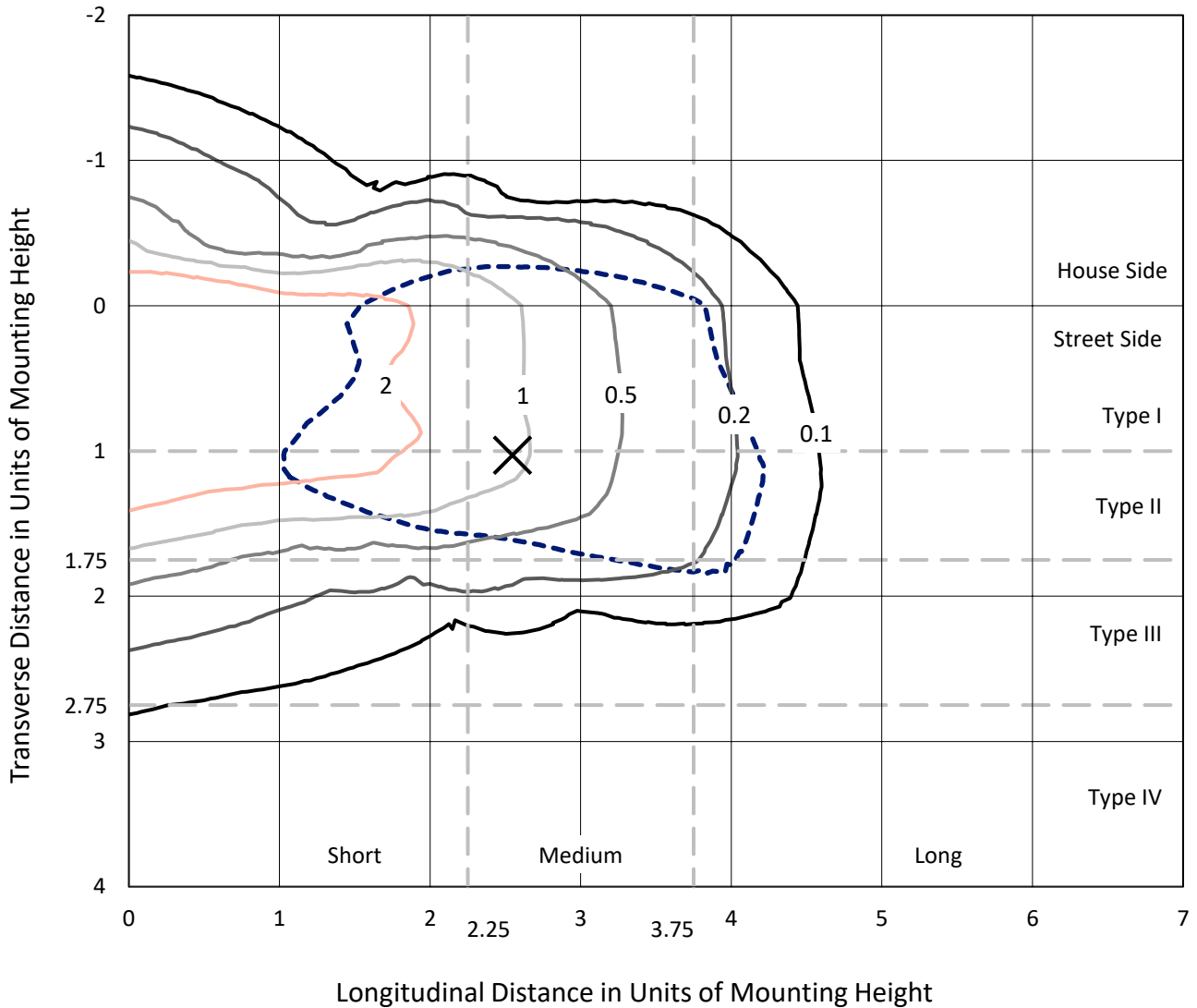
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596788
 CATALOG NUMBER: MSA-SA4C-827-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

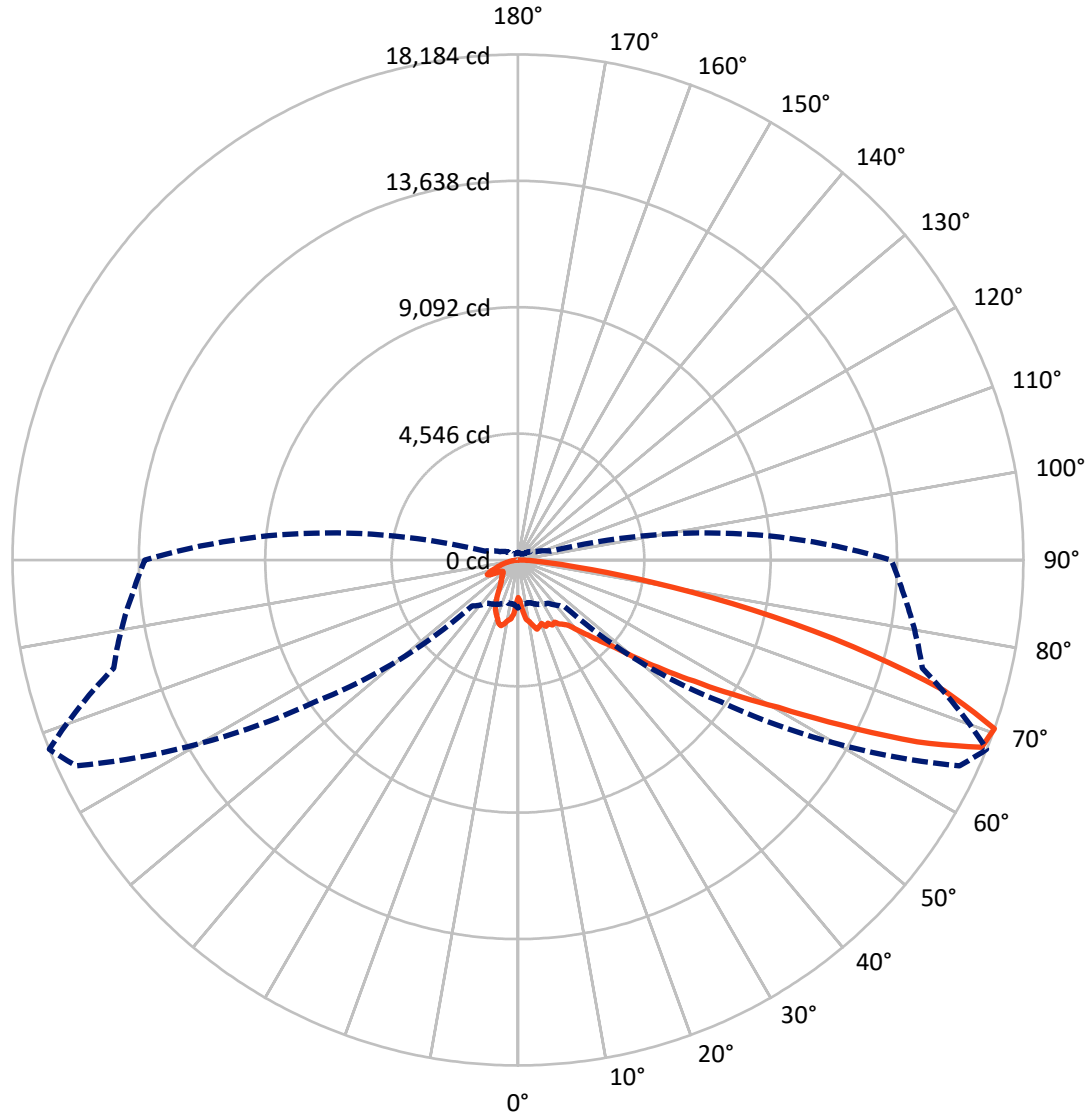
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P596788
CATALOG NUMBER: MSA-SA4C-827-U-SL2

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P596788

CATALOG NUMBER: MSA-SA4C-827-U-SL2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3354.9	0.0	3354.9
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	14217.1	0.0	14217.1
	% Fixture	80.9	0.0	80.9
Total	Lumens	17572.0	0.0	17572.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.9	1.0
10°-20°	586.5	3.3
20°-30°	892.1	5.1
30°-40°	1362.7	7.8
40°-50°	2343.1	13.3
50°-60°	3878.3	22.1
60°-70°	4781.4	27.2
70°-80°	3071.5	17.5
80°-90°	476.4	2.7
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°	17572.0	100.0
0°-180°	17572.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596788

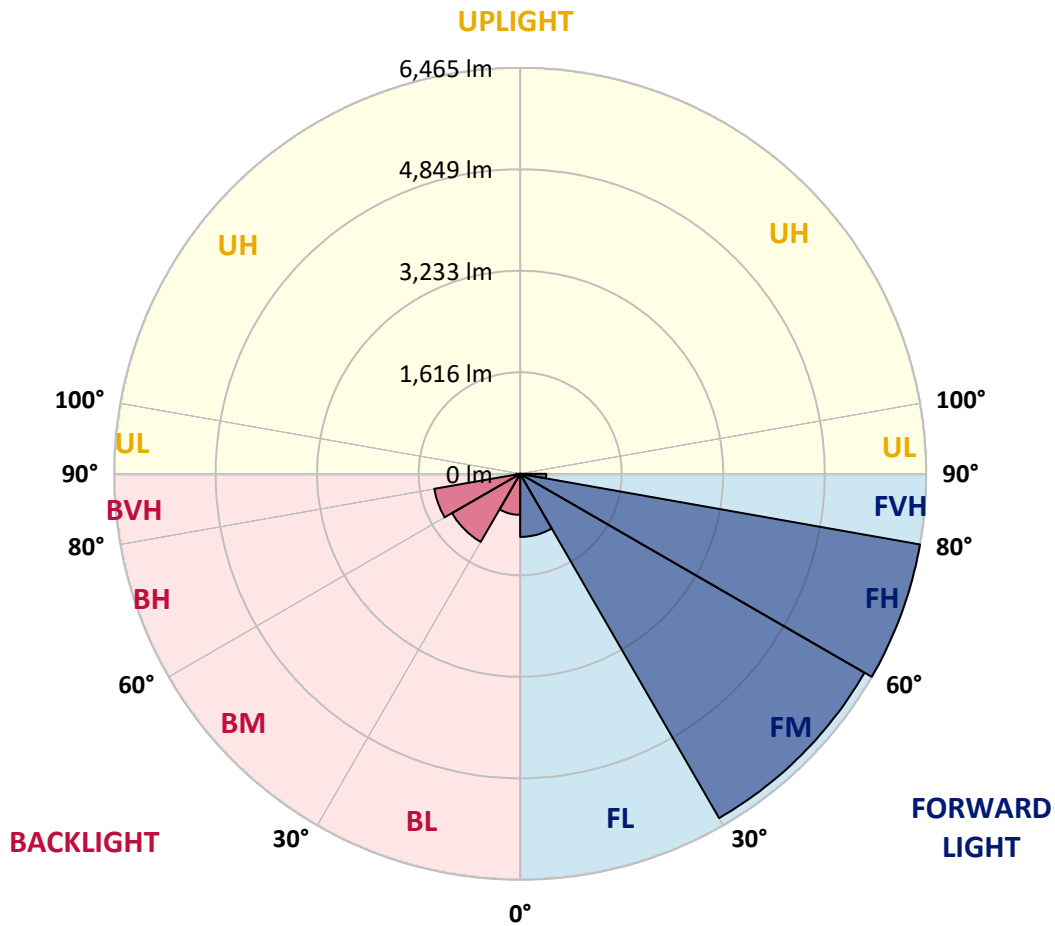
CATALOG NUMBER: MSA-SA4C-827-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1004.8	5.7			
FM (30°-60°)	6331.9	36.0			
FH (60°-80°)	6465.1	36.8			G3/7500
FVH (80°-90°)	415.3	2.4			G3/500
BL (0°-30°)	653.7	3.7	B2/1000		
BM (30°-60°)	1252.3	7.1	B2/2500		
BH (60°-80°)	1387.8	7.9	B3/2500		G3/2500
BVH (80°-90°)	61.2	0.3			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 III Medium





REPORT NUMBER: P596788
 CATALOG NUMBER: MSA-SA4C-827-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3
2.5°	1548.1	1485.6	1422.3	1453.2	1502.5	1545.9	1537.0	1542.2	1482.6	1474.5	1631.2
5°	1823.9	1716.5	1714.3	1715.8	1720.2	1670.2	1792.2	1855.5	1869.5	1934.2	2087.9
7.5°	1919.5	1876.1	1832.0	1854.0	1798.1	1803.3	1953.3	2118.0	2157.0	2204.1	2414.4
10°	1899.6	1858.4	1871.7	1875.3	1885.6	1968.7	2065.1	2223.2	2256.3	2406.3	2460.7
12.5°	1902.6	1895.2	1957.0	1959.2	2069.5	2218.8	2257.0	2402.6	2415.9	2526.2	2753.4
15°	2003.3	2054.1	2019.5	2037.9	2059.2	2237.9	2293.1	2501.9	2581.4	2723.3	2893.9
17.5°	2199.7	2214.4	2110.7	2083.5	2153.3	2207.8	2333.5	2424.0	2507.1	2903.5	3138.8
20°	2245.3	2285.0	2161.4	2021.0	2168.8	2244.5	2332.0	2373.2	2437.9	2930.0	3263.8
22.5°	2440.9	2358.5	2209.2	2087.1	2135.7	2209.2	2272.5	2427.7	2597.5	2854.2	3388.9
25°	2551.9	2504.1	2371.0	2240.1	2198.9	2201.1	2323.2	2462.2	2521.1	2965.3	3413.9
27.5°	2820.4	2743.9	2444.6	2419.6	2264.4	2143.8	2331.3	2547.5	2650.5	2878.5	3535.9
30°	3156.5	3098.4	2705.6	2672.6	2435.7	2225.4	2434.3	2610.8	2596.1	2935.1	3620.5
32.5°	3428.6	3525.7	3129.3	2868.2	2699.8	2498.3	2401.9	2599.7	2746.1	3066.7	3763.9
35°	3816.9	3908.1	3459.5	3283.0	2917.5	2624.7	2627.7	2751.2	2841.7	3220.4	3924.3
37.5°	4489.1	4408.9	4047.8	3769.1	3535.2	3098.4	2967.5	2924.1	2996.9	3408.7	4238.3
40°	4973.7	4906.1	4481.0	4322.1	3866.9	3613.2	3254.3	3213.1	3341.8	3602.9	4494.9
42.5°	5548.1	5427.5	5031.8	4900.9	4425.1	3967.6	3605.8	3629.3	3691.9	3969.1	4842.1
45°	6132.7	5840.0	5615.7	5605.4	5287.7	4656.0	4169.9	4150.8	4153.0	4508.2	5231.8
47.5°	6596.8	6333.5	6076.9	5954.8	5794.5	5846.7	4989.2	4764.9	4697.2	5050.9	5816.5
50°	6910.8	6607.8	6317.3	6288.7	6716.7	6998.4	5758.4	5518.7	5560.6	5827.5	6596.1
52.5°	6917.5	6557.8	6254.8	6455.6	7463.9	7866.9	7083.7	6413.7	6547.5	6729.2	7613.2
55°	6436.5	6063.6	5866.5	6324.0	7755.8	8897.2	8945.8	7847.8	7693.3	7760.3	8828.8
57.5°	5422.3	5045.8	4931.1	5479.0	7202.1	9890.8	11194.7	9561.3	9108.3	8828.8	10074.7
60°	4081.6	3755.8	3684.5	4033.8	5971.0	9598.8	13015.6	11694.1	10771.1	10022.4	11324.1
62.5°	3060.9	2827.0	2719.6	2769.6	4131.6	8649.4	14211.4	14388.7	13081.8	11325.6	12545.0
65°	2487.2	2298.2	2202.6	2137.9	2569.6	6688.0	13995.2	16656.8	15780.9	12694.3	13495.1
67.5°	2077.6	1909.9	1865.8	1929.0	2031.3	3880.1	12303.7	17925.4	17984.9	14044.5	14050.4
70°	1724.6	1600.3	1584.1	1763.6	1898.1	2341.6	8886.9	17526.8	18184.2	15057.2	13920.2
72.5°	1332.6	1265.7	1263.5	1545.1	1885.6	1996.0	5292.2	15141.0	16024.3	14733.6	12646.5
75°	924.4	878.1	913.4	1270.1	1842.3	2024.6	3020.4	11793.4	12454.5	12537.6	10130.5
77.5°	636.1	597.2	635.4	918.6	1645.2	2073.2	2112.9	8527.3	8600.9	8407.4	5802.5
80°	442.7	415.5	444.9	650.1	1280.4	2051.8	1798.9	5368.6	4925.9	3752.2	1857.7
82.5°	274.3	266.2	298.6	463.3	901.6	1866.5	1704.7	2770.4	2115.1	1035.5	663.4
85°	144.1	132.4	173.6	302.3	564.1	1465.0	1597.4	1264.2	816.3	367.7	266.2
87.5°	42.7	38.2	66.9	122.1	239.0	656.7	914.1	536.1	304.5	108.1	83.1
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: P596788
 CATALOG NUMBER: MSA-SA4C-827-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3	1347.3
2.5°	1642.2	1634.1	1525.3	1539.3	1562.8	1568.7	1567.9	1528.2	1486.3	1603.2	1599.6
5°	2091.6	2018.8	1964.3	1952.6	1885.6	1818.7	1842.3	1834.2	1823.9	1876.8	1883.4
7.5°	2415.2	2314.4	2251.2	2088.6	1934.2	1800.3	1843.0	1856.2	1829.7	1925.4	1954.0
10°	2500.5	2421.0	2352.6	2143.8	2058.5	1980.5	1865.1	1733.4	1715.8	1660.6	1667.2
12.5°	2720.4	2709.3	2476.2	2292.3	2181.3	2026.1	1776.8	1617.2	1480.4	1487.0	1447.3
15°	2893.9	2899.8	2619.6	2362.2	2064.4	1827.5	1534.1	1335.5	1195.1	1167.1	1138.4
17.5°	3127.0	3115.3	2631.4	2278.4	1901.1	1554.0	1194.3	997.2	973.7	989.9	964.9
20°	3228.5	3124.8	2556.4	2070.2	1645.9	1180.4	902.4	797.9	843.5	908.3	909.7
22.5°	3319.7	3142.5	2517.4	1902.6	1306.1	858.2	724.4	705.3	759.0	846.5	853.8
25°	3316.1	3224.1	2447.5	1733.4	1012.7	670.0	629.5	643.5	707.5	798.7	803.8
27.5°	3483.0	3161.6	2265.9	1511.3	762.6	573.6	583.9	609.7	639.8	726.6	743.5
30°	3481.5	3277.8	2174.7	1241.4	612.6	525.8	552.3	574.4	599.4	678.8	688.4
32.5°	3563.9	3202.1	2119.5	965.6	549.4	514.1	520.7	542.7	578.8	632.5	639.1
35°	3663.2	3288.1	1943.0	767.1	525.8	503.8	508.9	521.4	554.5	603.8	610.4
37.5°	3981.6	3304.3	1873.1	646.4	524.4	499.4	498.6	505.2	542.7	587.6	607.5
40°	4105.9	3452.1	1669.4	603.8	519.2	499.4	489.1	492.7	523.6	581.0	596.4
42.5°	4403.8	3501.4	1518.7	589.1	519.2	490.5	474.4	480.2	516.3	567.0	591.3
45°	4710.4	3571.2	1339.2	586.1	518.5	489.8	458.9	472.1	501.6	544.2	570.7
47.5°	5147.3	3822.8	1159.8	577.3	512.6	493.5	455.2	454.5	480.2	517.0	542.0
50°	5859.9	4215.5	1020.8	566.3	513.3	490.5	447.9	437.6	454.5	486.9	511.1
52.5°	6852.0	4884.7	966.4	560.4	507.4	478.8	435.4	419.2	428.8	454.5	478.0
55°	8003.7	5788.6	1020.0	560.4	495.7	460.4	417.7	398.6	403.8	421.4	444.2
57.5°	9349.5	6911.6	1279.6	552.3	481.0	438.3	396.4	374.3	375.8	391.2	411.8
60°	10754.9	8166.2	1861.4	545.7	470.7	414.0	371.4	348.6	346.4	361.1	379.5
62.5°	12162.5	9323.8	2473.3	561.1	467.7	393.5	344.9	322.1	321.4	334.6	350.1
65°	13281.9	10115.1	2625.5	623.6	486.9	369.9	317.7	296.4	294.9	305.9	322.9
67.5°	13831.2	10229.8	1994.5	701.6	527.3	347.9	291.2	271.4	269.9	281.7	296.4
70°	13424.5	9445.9	1231.1	709.7	525.1	322.1	264.0	247.1	244.2	256.7	267.7
72.5°	11919.8	8262.6	935.5	628.1	454.5	285.3	236.8	222.1	217.7	228.7	239.0
75°	9567.2	6560.0	749.4	506.7	358.2	240.5	209.6	195.6	190.5	200.8	209.6
77.5°	5573.1	3690.4	547.9	395.7	270.6	196.4	178.7	166.2	160.3	171.4	178.0
80°	1812.1	1229.6	344.2	283.9	197.8	153.7	144.9	136.1	130.2	137.5	139.7
82.5°	650.9	457.4	190.5	174.3	131.6	110.3	109.6	104.4	97.1	100.0	100.0
85°	288.3	208.9	113.3	93.4	78.7	58.8	69.1	65.5	58.1	56.6	54.4
87.5°	80.9	69.1	41.2	31.6	25.7	9.6	22.1	19.9	16.2	14.7	10.3
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)