

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: McGRAW-EDISON

Report Number: P452997

Luminaire Tested: **GALN-SA4A-727-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-727-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11845 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

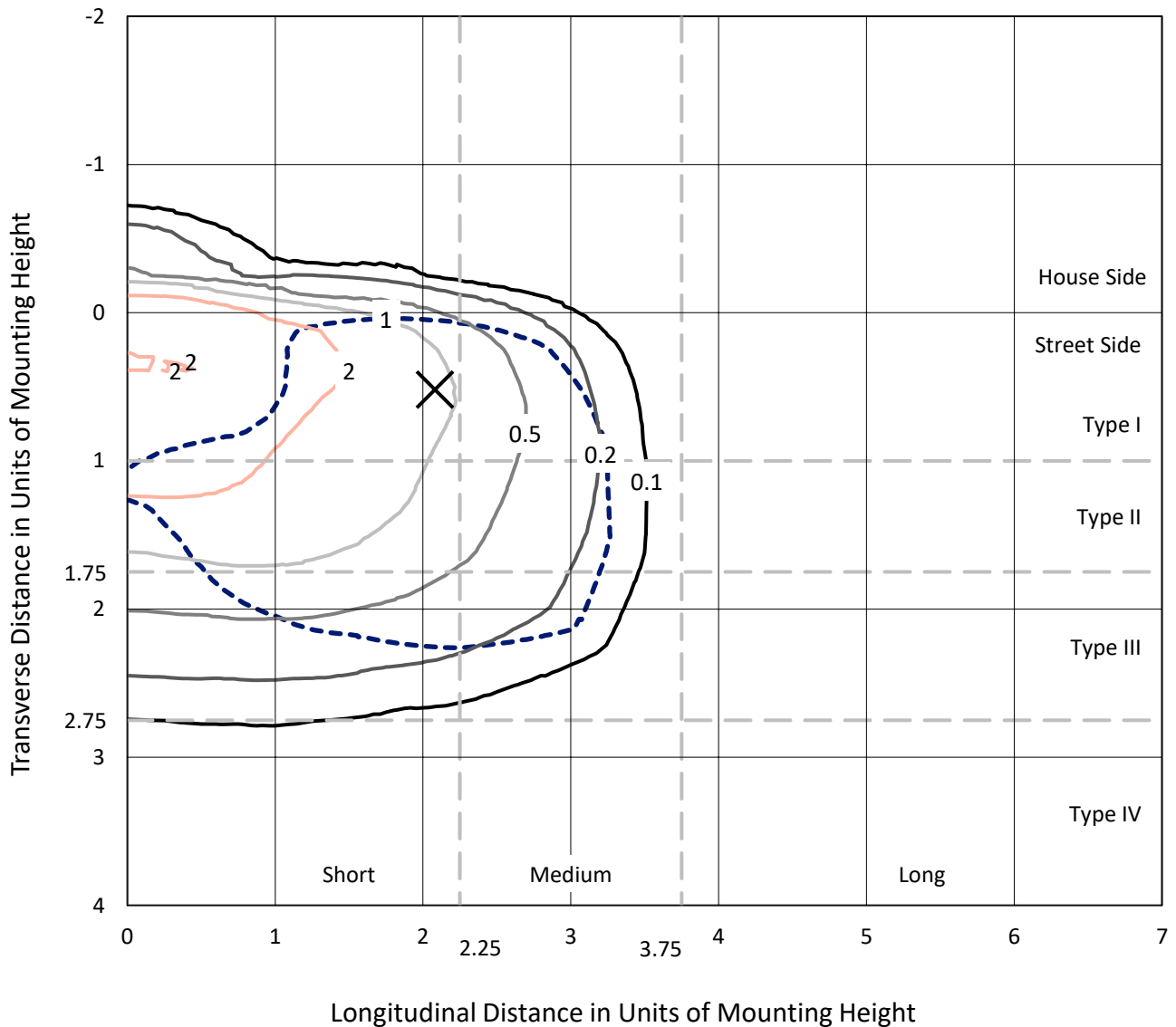
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

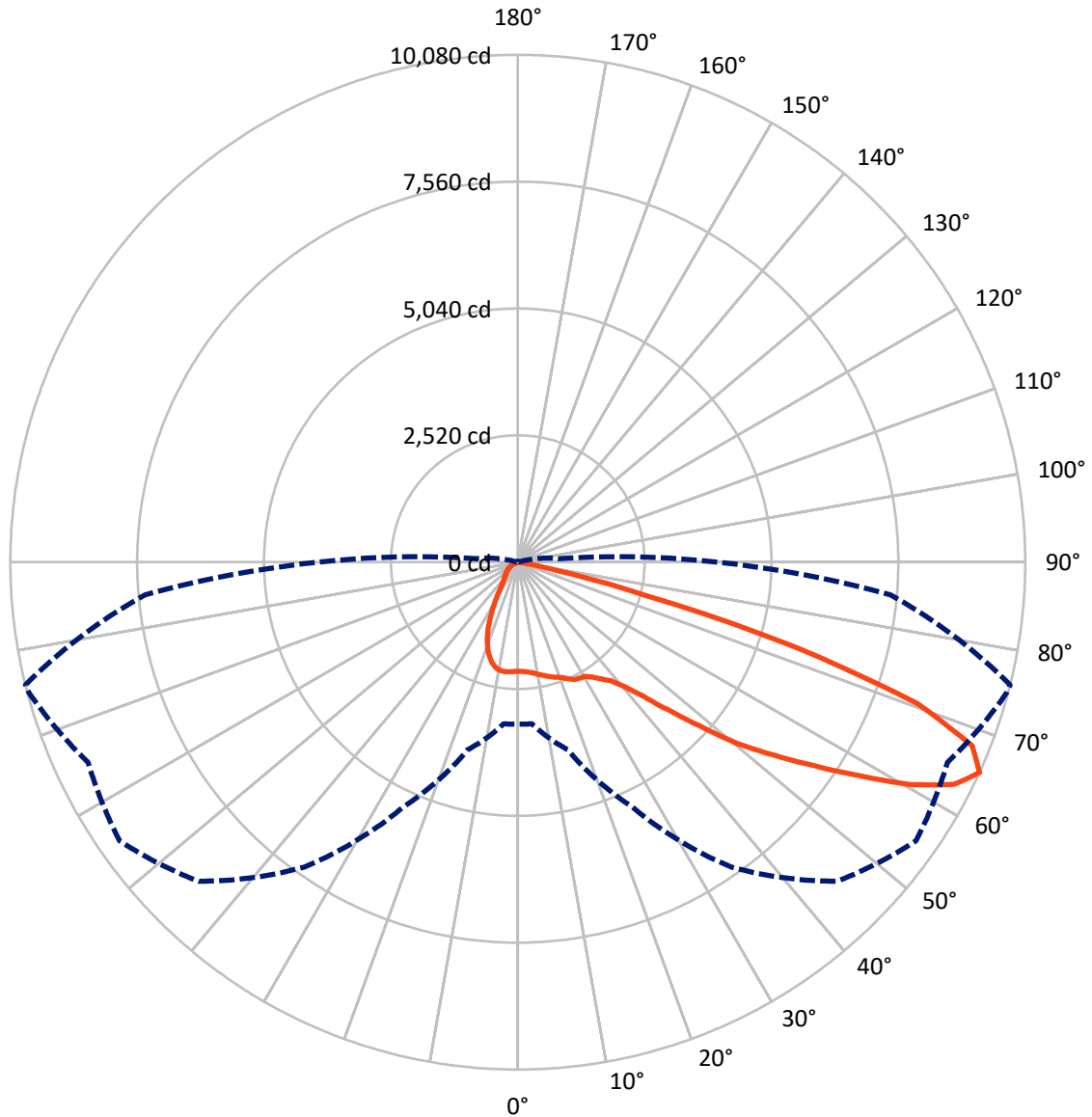
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	855.4	0.0	855.4
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	10989.6	0.0	10989.6
	% Fixture	92.8	0.0	92.8
Total	Lumens	11845.0	0.0	11845.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.5	1.5
10°-20°	397.4	3.4
20°-30°	640.4	5.4
30°-40°	1113.6	9.4
40°-50°	1840.1	15.5
50°-60°	2842.5	24.0
60°-70°	3471.1	29.3
70°-80°	1317.4	11.1
80°-90°	44.0	0.4
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°	11845.0	100.0
0°-180°	11845.0	100.0

Coefficient of Utilization



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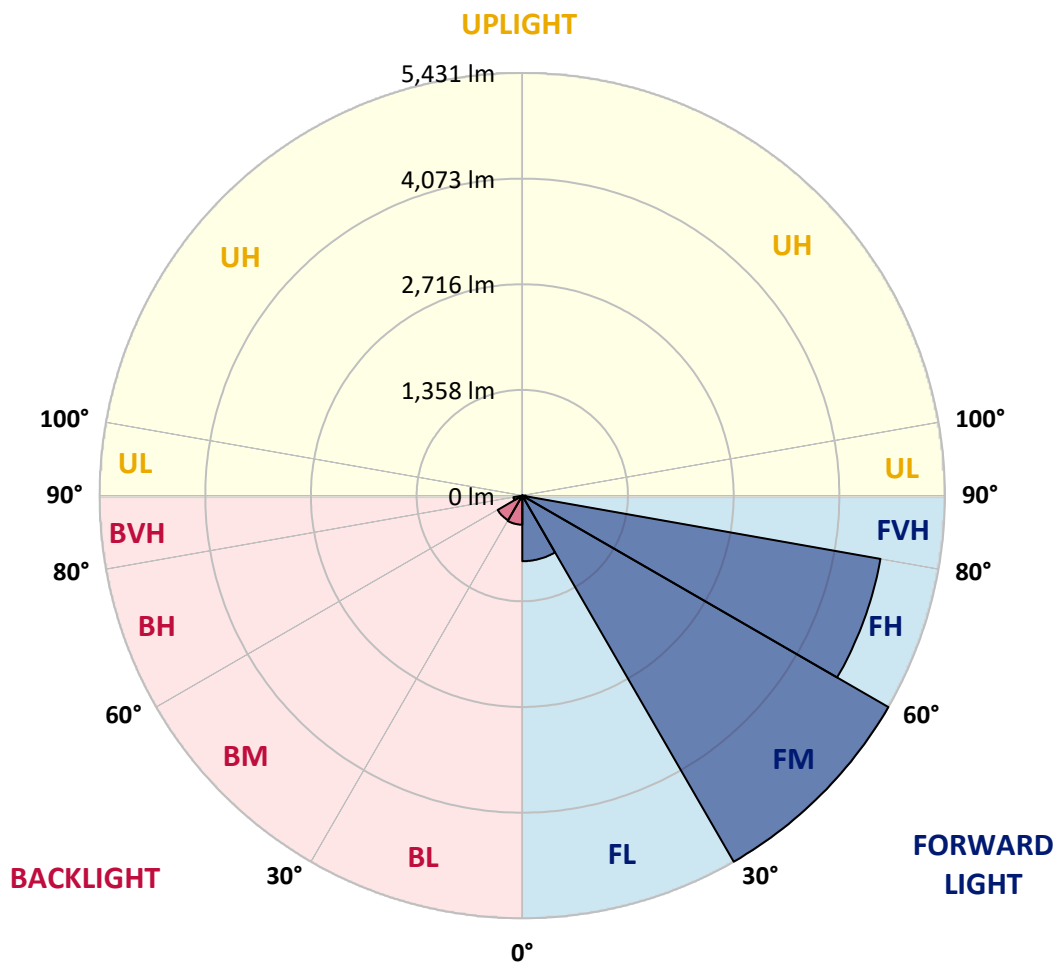
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	842.6	7.1			
FM (30°-60°)	5431.1	45.9			
FH (60°-80°)	4672.5	39.4			G2/5000
FVH (80°-90°)	43.4	0.4			G1/100
BL (0°-30°)	373.7	3.2	B1/500		
BM (30°-60°)	365.0	3.1	B1/1000		
BH (60°-80°)	116.1	1.0	B1/500		G1/500
BVH (80°-90°)	0.6	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8
2.5°	2070.7	2071.5	2076.5	2089.1	2108.3	2124.2	2137.6	2159.3	2174.4	2176.0	2181.0
5°	1927.6	1917.6	1927.6	1960.3	1989.5	2033.9	2088.2	2142.6	2191.1	2194.4	2217.8
7.5°	1767.1	1775.4	1791.3	1824.8	1880.0	1947.7	2026.3	2123.3	2215.3	2223.7	2269.7
10°	1604.0	1622.4	1648.3	1699.3	1776.3	1864.1	1971.1	2110.0	2253.8	2265.5	2345.0
12.5°	1453.5	1461.8	1493.6	1562.2	1657.5	1781.3	1929.3	2102.4	2296.5	2310.7	2425.2
15°	1338.1	1348.9	1376.5	1438.4	1544.6	1703.5	1895.0	2099.9	2338.3	2358.3	2505.5
17.5°	1316.3	1323.0	1334.7	1376.5	1469.4	1641.6	1864.1	2099.1	2378.4	2402.7	2580.0
20°	1405.8	1400.0	1388.2	1384.1	1435.1	1594.0	1841.5	2105.8	2416.9	2444.5	2658.6
22.5°	1629.9	1637.5	1568.9	1487.8	1471.0	1586.4	1838.2	2137.6	2477.9	2510.5	2746.4
25°	2105.8	2048.1	1941.0	1747.0	1600.7	1632.4	1875.8	2212.8	2549.0	2585.0	2825.8
27.5°	2631.8	2614.2	2447.8	2128.4	1855.7	1729.4	1942.7	2270.5	2572.4	2609.2	2871.0
30°	3148.6	3169.5	2978.9	2626.0	2226.2	1909.3	2005.4	2292.3	2593.3	2631.8	2928.7
32.5°	3627.8	3652.9	3485.7	3136.1	2662.7	2220.4	2113.3	2376.7	2681.1	2720.5	3024.9
35°	4005.0	4008.3	3882.1	3603.6	3139.4	2598.4	2346.6	2524.8	2799.9	2845.9	3126.9
37.5°	4351.2	4346.2	4198.2	3958.2	3536.7	2973.8	2640.2	2695.4	2935.4	2983.0	3274.1
40°	4608.0	4611.3	4563.6	4337.8	3907.1	3320.9	2872.7	2855.1	3162.9	3237.3	3488.2
42.5°	4779.4	4810.3	4833.8	4719.2	4373.0	3748.3	3229.8	3197.1	3557.6	3619.5	3790.9
45°	4918.2	4973.4	5090.5	5084.6	4820.4	4272.6	3719.8	3652.9	4117.1	4183.1	4176.4
47.5°	5019.4	5075.4	5269.5	5386.5	5241.0	4781.1	4336.2	4278.5	4785.3	4857.2	4602.1
50°	5071.3	5138.2	5385.7	5612.3	5569.7	5271.1	5038.6	5042.0	5592.3	5661.7	5095.5
52.5°	4950.0	5037.0	5447.6	5855.7	5938.5	5740.3	5696.8	5807.2	6310.6	6370.0	5541.3
55°	4562.8	4672.4	5363.1	6063.1	6365.8	6293.9	6444.5	6612.5	7095.9	7134.4	5998.7
57.5°	4317.8	4434.0	5113.9	6239.6	6879.3	6989.7	7228.1	7351.0	7906.3	8004.1	6523.9
60°	4111.2	4202.4	4909.0	6277.2	7401.2	7841.1	8072.7	8199.8	8906.5	8970.1	7101.8
62.5°	3767.5	3872.0	4562.8	6014.6	7663.8	8522.6	9002.7	8945.8	9680.1	9724.4	7456.4
65°	3214.7	3223.9	3860.3	5354.8	7392.8	8965.0	9655.8	9417.5	10049.7	10079.8	7428.8
67.5°	2399.3	2488.0	2969.7	4209.0	6244.6	8587.0	9867.4	9430.0	9816.4	9732.7	6839.2
70°	1545.5	1613.2	2013.0	2918.7	4502.6	7166.2	9165.7	8783.6	8615.5	8429.8	5598.1
72.5°	713.4	800.3	1195.9	1667.6	2670.3	5104.7	7440.5	7136.1	6201.1	5742.8	3558.4
75°	311.1	332.8	590.4	879.8	1251.9	2699.5	4905.7	4429.8	2800.7	2558.2	1424.2
77.5°	189.8	204.1	309.4	471.7	491.7	1028.6	2642.7	1932.7	865.6	763.5	386.4
80°	128.8	144.7	225.0	246.7	168.1	286.8	991.8	516.0	174.8	167.3	82.8
82.5°	62.7	79.4	166.4	138.0	72.8	92.0	288.5	110.4	51.0	47.7	29.3
85°	9.2	15.9	93.7	90.3	32.6	21.7	51.0	27.6	17.6	16.7	13.4
87.5°	0.0	0.0	31.8	14.2	3.3	3.3	5.9	5.9	6.7	5.9	6.7
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°	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8	2166.8
2.5°	2183.6	2187.7	2171.8	2149.3	2125.0	2100.8	2066.5	2035.5	2017.1	2028.0	2001.2
5°	2222.9	2219.5	2177.7	2109.1	2018.0	1908.4	1799.7	1706.9	1676.8	1631.6	1626.6
7.5°	2277.2	2268.0	2179.4	2022.2	1816.4	1610.7	1410.0	1277.0	1200.9	1136.5	1138.2
10°	2353.3	2326.6	2160.1	1869.1	1530.4	1220.1	964.2	788.6	712.5	688.3	669.0
12.5°	2431.9	2380.1	2106.6	1662.5	1191.7	833.8	586.2	479.2	432.4	417.3	415.6
15°	2502.2	2420.2	2013.0	1414.2	866.4	532.7	399.7	364.6	358.8	359.6	358.8
17.5°	2571.6	2452.0	1883.3	1150.7	588.7	382.2	343.7	335.4	337.9	341.2	340.4
20°	2629.3	2458.7	1717.7	878.1	416.5	335.4	322.8	321.1	323.6	326.2	326.2
22.5°	2692.0	2463.7	1521.2	608.0	340.4	311.9	305.2	305.2	308.6	311.9	312.8
25°	2738.9	2436.1	1286.2	436.5	300.2	289.4	286.0	286.8	290.2	291.9	291.0
27.5°	2746.4	2358.3	1037.0	334.5	272.6	261.8	258.4	261.8	257.6	260.1	258.4
30°	2753.1	2259.7	784.4	281.8	247.5	230.8	225.8	220.8	217.4	213.3	212.4
32.5°	2774.0	2143.4	572.9	253.4	224.1	205.7	194.0	179.8	168.9	165.6	164.7
35°	2783.2	2003.8	420.7	230.8	203.2	183.1	162.2	142.2	126.3	120.4	124.6
37.5°	2818.3	1868.3	326.2	214.1	184.8	159.7	133.0	107.9	92.8	89.5	91.2
40°	2890.2	1721.1	273.5	199.9	168.9	138.0	105.4	81.1	71.1	67.7	66.9
42.5°	3005.6	1574.7	243.4	186.5	153.0	116.2	82.8	63.6	55.2	52.7	52.7
45°	3146.1	1434.2	222.5	172.3	136.3	93.7	65.2	51.0	46.0	44.3	44.3
47.5°	3330.9	1311.3	204.9	158.1	117.9	74.4	52.7	44.3	41.0	41.8	42.7
50°	3518.3	1220.1	185.7	142.2	97.0	61.0	45.2	39.3	38.5	39.3	39.3
52.5°	3659.6	1166.6	159.7	120.4	76.1	51.0	40.1	36.8	36.0	34.3	34.3
55°	3850.3	1154.9	127.1	97.8	60.2	42.7	36.0	33.5	30.9	29.3	28.4
57.5°	4095.3	1168.3	97.8	76.1	46.8	35.1	31.8	27.6	24.3	20.9	20.9
60°	4247.5	1138.2	76.1	58.5	34.3	28.4	24.3	20.1	15.9	13.4	12.5
62.5°	4199.0	1011.1	60.2	43.5	24.3	20.9	15.9	13.4	9.2	6.7	5.9
65°	3949.0	816.2	48.5	30.1	17.6	12.5	8.4	8.4	4.2	0.8	0.0
67.5°	3456.4	604.6	38.5	20.1	10.0	5.9	4.2	2.5	0.0	0.0	0.0
70°	2813.3	436.5	30.1	12.5	5.9	4.2	1.7	0.8	0.0	0.0	0.0
72.5°	1786.3	250.1	23.4	7.5	4.2	1.7	0.0	0.0	0.0	0.0	0.0
75°	690.8	97.8	15.9	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	195.7	46.0	9.2	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	51.0	20.1	5.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	24.3	8.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	14.2	3.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.7	0.8	0.0	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	0.0

(END OF REPORT)