

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: P453376

Luminaire Tested: **GALN-SA4B-827-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-827-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11916 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

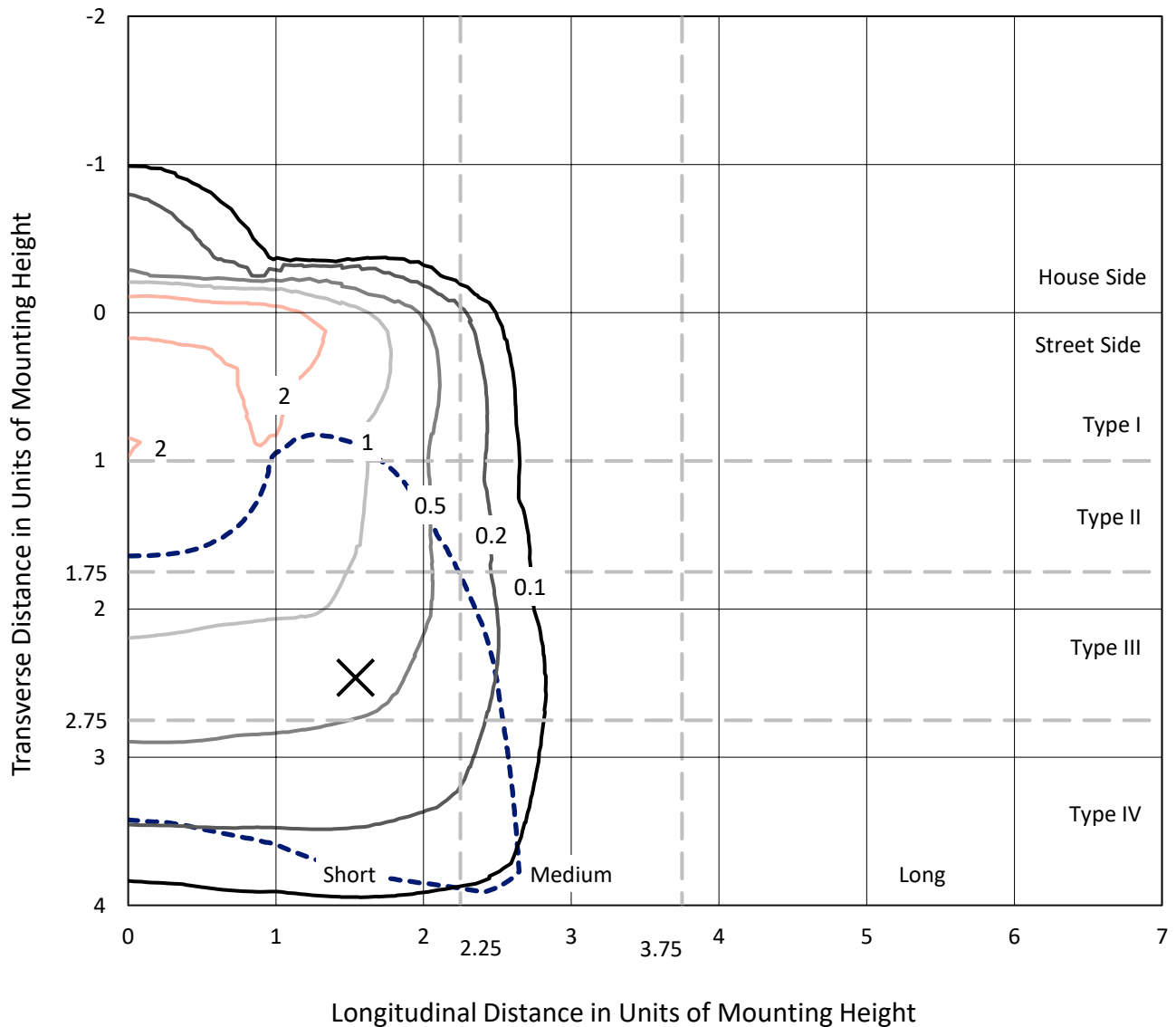
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

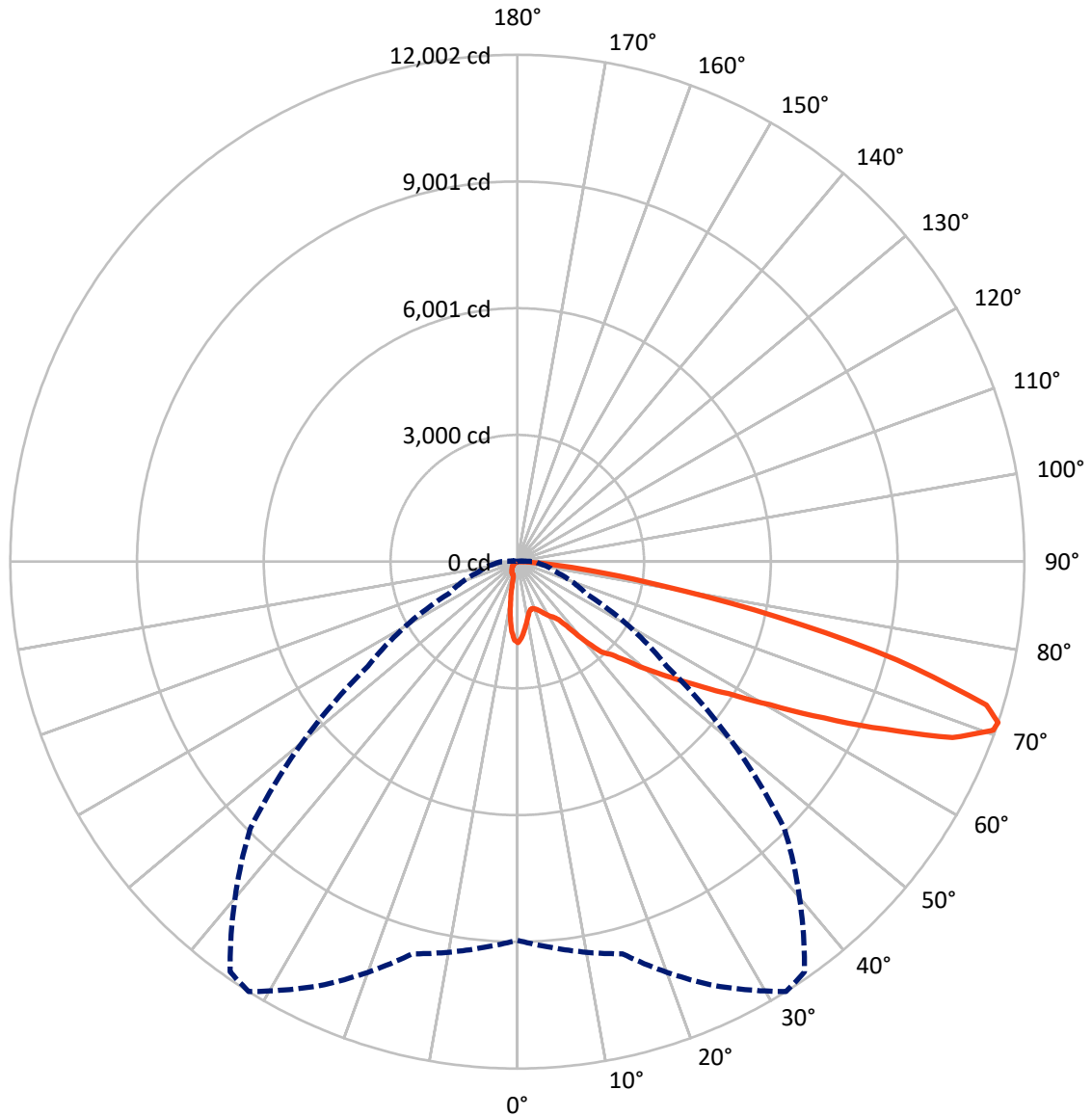
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	998.1	0.0	998.1
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	10917.9	0.0	10917.9
	% Fixture	91.6	0.0	91.6
Total	Lumens	11916.0	0.0	11916.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.8	1.3
10°-20°	338.2	2.8
20°-30°	526.1	4.4
30°-40°	876.5	7.4
40°-50°	1630.4	13.7
50°-60°	2617.7	22.0
60°-70°	3520.9	29.5
70°-80°	2089.0	17.5
80°-90°	161.5	1.4
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°	11916.0	100.0
0°-180°	11916.0	100.0



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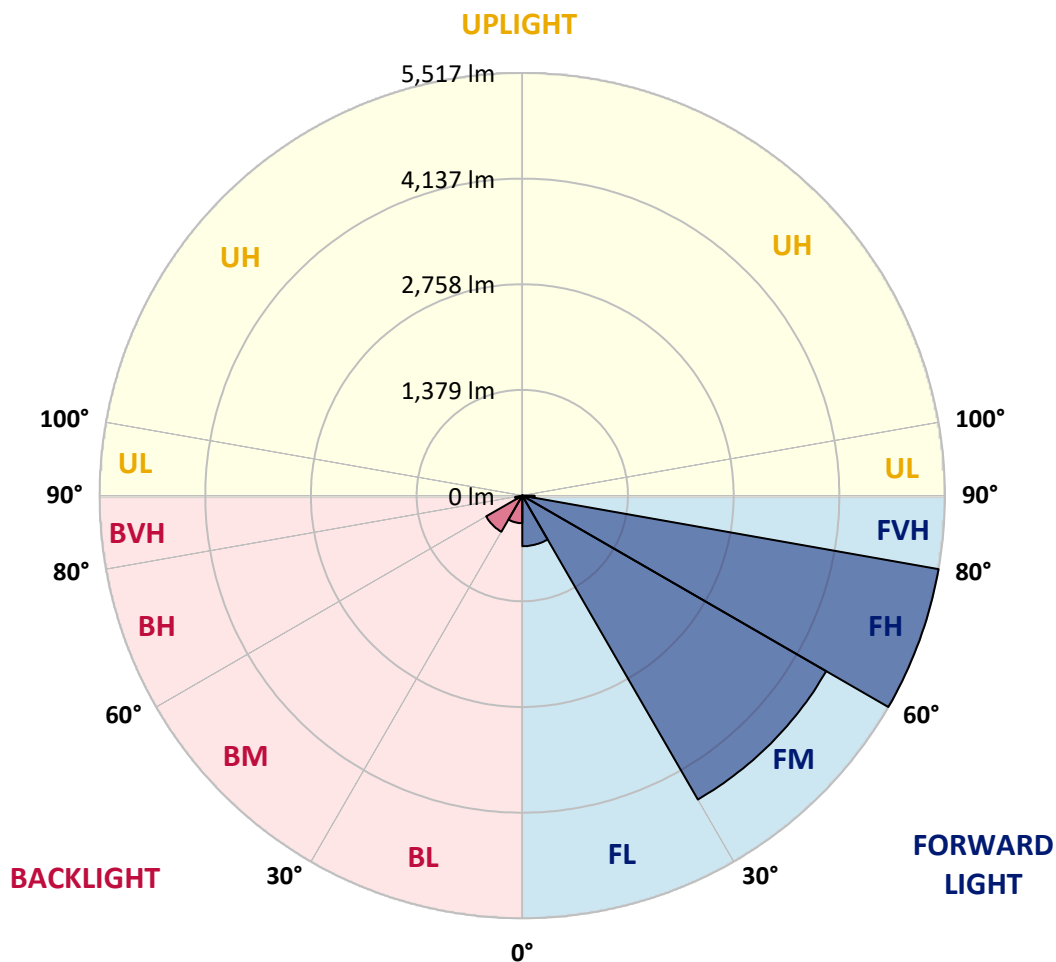
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	660.5	5.5			
FM	(30°-60°)	4580.1	38.4			
FH	(60°-80°)	5516.5	46.3			G3/7500
FVH	(80°-90°)	160.8	1.3			G2/225
BL	(0°-30°)	359.6	3.0	B1/500		
BM	(30°-60°)	544.5	4.6	B1/1000		
BH	(60°-80°)	93.3	0.8	B0/110		G0/110
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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3
2.5°	1777.2	1795.5	1792.8	1799.2	1814.7	1821.2	1838.5	1857.7	1884.3	1902.6	1914.4
5°	1591.6	1605.3	1607.1	1639.1	1654.7	1672.1	1723.3	1779.1	1841.3	1890.7	1923.6
7.5°	1393.1	1400.4	1415.0	1457.1	1496.4	1513.8	1591.6	1688.5	1786.4	1878.8	1938.2
10°	1229.3	1237.6	1264.1	1308.9	1345.5	1368.4	1476.3	1598.0	1735.2	1872.4	1959.3
12.5°	1136.0	1140.6	1150.7	1190.9	1237.6	1262.3	1378.4	1517.5	1694.0	1875.1	1994.9
15°	1129.6	1127.8	1115.9	1132.4	1174.5	1200.1	1313.5	1462.6	1657.4	1884.3	2037.0
17.5°	1163.5	1158.9	1130.6	1130.6	1165.3	1186.4	1286.1	1433.3	1639.1	1905.3	2096.5
20°	1215.6	1208.3	1161.7	1158.0	1191.8	1213.8	1302.5	1435.2	1642.8	1944.6	2176.1
22.5°	1281.5	1273.3	1202.8	1204.6	1241.2	1263.2	1350.1	1468.1	1665.7	1993.1	2261.1
25°	1367.5	1358.3	1275.1	1271.4	1309.8	1329.0	1420.5	1526.6	1697.7	2053.5	2372.7
27.5°	1481.8	1462.6	1362.9	1357.4	1398.6	1423.3	1505.6	1605.3	1754.4	2136.7	2522.7
30°	1576.0	1555.0	1459.8	1445.2	1489.1	1508.3	1593.4	1711.4	1866.0	2282.2	2730.4
32.5°	1699.5	1668.4	1556.8	1518.4	1565.0	1589.7	1720.5	1909.0	2031.5	2435.8	2977.3
35°	1977.6	1958.4	1822.1	1687.6	1684.9	1716.0	1908.0	2108.4	2201.7	2675.5	3313.9
37.5°	2375.5	2361.7	2217.2	2037.0	1984.9	1970.2	2135.8	2327.9	2473.3	3004.8	3705.4
40°	2837.4	2805.4	2672.7	2520.0	2452.3	2409.3	2404.7	2654.4	2828.2	3452.0	4113.4
42.5°	3168.5	3110.0	2949.0	2938.0	2923.4	2878.5	2748.6	3131.9	3286.5	3933.2	4549.7
45°	3516.1	3427.3	3187.7	3146.5	3141.1	3138.3	3268.2	3697.2	3785.9	4454.5	4997.9
47.5°	3785.9	3715.5	3518.8	3500.5	3523.4	3585.6	3955.1	4297.2	4278.9	4919.2	5373.8
50°	4145.4	4092.3	3873.7	3908.5	4026.5	4128.0	4729.9	4951.2	4684.1	5285.1	5647.3
52.5°	4569.8	4471.9	4268.9	4363.1	4544.2	4713.4	5552.2	5523.8	4968.6	5560.4	5851.3
55°	4937.5	4868.0	4798.5	4896.3	5167.1	5378.4	6294.9	5952.8	5175.3	5781.8	5940.9
57.5°	5559.5	5543.0	5471.7	5571.4	5899.8	6119.3	6959.9	6285.8	5308.0	5897.0	5835.7
60°	6479.7	6453.1	6320.5	6447.7	6875.7	7220.6	7572.7	6584.9	5338.1	5852.2	5533.0
62.5°	7586.5	7495.9	7382.5	7570.0	8157.2	8309.1	8149.9	6762.3	5225.6	5495.5	4803.0
65°	8620.1	8526.8	8529.5	8924.6	9564.0	9667.4	8823.1	6735.8	4896.3	4601.8	3542.6
67.5°	9411.3	9395.7	9507.3	10278.4	11114.4	11043.1	9425.0	6338.8	3920.4	2982.8	1882.4
70°	9451.5	9481.7	9801.8	11103.4	11952.3	11838.9	9373.8	5152.5	2444.1	1372.0	741.8
71°	8964.9	9168.0	9610.7	11077.8	12001.7	11854.4	8942.0	4315.5	1792.8	956.8	535.1
72.5°	7639.5	7746.5	8703.3	10425.7	11611.1	11296.4	7847.1	3024.9	1147.9	585.4	307.3
75°	4207.6	4471.0	5828.4	8179.2	9286.9	9010.6	5114.0	1437.0	572.6	320.1	127.1
77.5°	2003.2	1952.0	2843.8	4864.3	6296.7	6282.1	2576.7	638.5	333.9	216.8	64.0
80°	572.6	643.9	1088.5	2312.3	3496.0	3534.4	989.7	308.3	231.4	169.2	32.9
82.5°	172.9	176.5	399.7	1022.6	1738.8	1639.1	371.4	157.3	166.5	134.5	19.2
85°	30.2	37.5	118.0	360.4	663.2	503.1	93.3	75.0	109.8	88.7	11.0
87.5°	1.8	2.7	39.3	41.2	58.5	33.8	16.5	11.0	23.8	23.8	6.4
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°	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3	1916.3
2.5°	1922.7	1928.2	1924.5	1916.3	1902.6	1886.1	1864.1	1845.8	1830.3	1822.1	1832.1
5°	1934.6	1941.9	1923.6	1882.4	1820.2	1752.5	1675.7	1616.3	1569.6	1555.0	1549.5
7.5°	1952.9	1957.4	1908.0	1816.6	1684.9	1524.8	1384.8	1266.8	1175.4	1147.9	1107.7
10°	1976.6	1973.9	1880.6	1710.5	1479.1	1238.5	1021.7	860.7	739.1	695.2	691.5
12.5°	2013.2	1998.6	1845.8	1566.0	1233.9	919.3	651.3	509.5	432.6	407.0	401.5
15°	2059.0	2024.2	1791.0	1396.7	944.9	593.6	401.5	358.6	348.5	346.7	344.8
17.5°	2112.9	2058.1	1718.7	1189.1	664.1	385.1	335.7	334.8	335.7	333.9	332.9
20°	2186.1	2093.7	1632.7	943.0	439.1	324.7	320.1	320.1	321.1	320.1	320.1
22.5°	2263.9	2135.8	1526.6	719.9	331.1	308.3	307.3	309.2	311.0	310.1	310.1
25°	2359.9	2190.7	1386.7	493.0	296.4	294.5	295.4	299.1	302.8	303.7	302.8
27.5°	2498.9	2258.4	1236.7	339.4	271.7	273.5	282.6	291.8	297.3	298.2	298.2
30°	2655.3	2333.4	1040.9	275.3	251.5	251.5	262.5	279.9	291.8	293.6	294.5
32.5°	2856.6	2420.3	824.1	247.9	232.3	230.5	240.6	261.6	283.6	290.0	290.0
35°	3105.4	2522.7	612.8	230.5	218.6	214.0	219.5	236.9	265.3	283.6	285.4
37.5°	3397.2	2619.7	448.2	215.0	205.8	199.4	203.1	216.8	239.6	267.1	274.4
40°	3667.0	2705.7	334.8	202.1	193.0	188.4	191.2	197.6	216.8	242.4	247.0
42.5°	3961.5	2772.4	266.2	188.4	180.2	178.4	178.4	181.1	193.9	208.5	209.5
45°	4255.1	2796.2	223.2	172.0	166.5	168.3	167.4	165.6	171.0	169.2	169.2
47.5°	4464.6	2767.9	184.8	156.4	156.4	159.2	154.6	148.2	145.4	134.5	135.4
50°	4608.2	2664.5	151.8	138.1	145.4	149.1	139.9	129.9	119.8	107.9	105.2
52.5°	4667.7	2480.6	124.4	114.3	129.0	133.5	122.6	110.7	95.1	85.1	82.3
55°	4629.3	2253.8	103.4	93.3	108.8	114.3	103.4	89.6	72.3	61.3	59.5
57.5°	4460.0	1983.1	87.8	74.1	86.9	90.6	83.2	68.6	51.2	40.2	40.2
60°	4167.3	1703.2	71.3	58.5	64.9	70.4	63.1	49.4	34.8	24.7	22.9
62.5°	3573.7	1383.0	57.6	45.7	45.7	50.3	43.9	35.7	22.0	12.8	11.9
65°	2580.3	948.5	45.7	33.8	32.9	32.9	27.4	23.8	12.8	5.5	3.7
67.5°	1402.2	535.1	36.6	25.6	22.9	22.0	17.4	13.7	5.5	0.9	0.0
70°	551.6	205.8	28.4	17.4	14.6	13.7	9.1	6.4	3.7	0.0	0.0
71°	374.1	141.8	24.7	14.6	11.9	10.1	7.3	5.5	2.7	0.0	0.0
72.5°	214.0	87.8	19.2	11.0	9.1	7.3	5.5	3.7	2.7	0.0	0.0
75°	93.3	44.8	11.9	8.2	6.4	4.6	3.7	2.7	0.9	0.0	0.0
77.5°	47.6	24.7	8.2	6.4	3.7	2.7	1.8	0.9	0.0	0.0	0.0
80°	26.5	12.8	5.5	3.7	2.7	1.8	0.9	0.9	0.0	0.0	0.0
82.5°	14.6	7.3	2.7	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.1	4.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.6	1.8	0.0	0.0	0.0	0.0	0.9	0.9	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)