

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: STREETWORKS

Report Number: P270848

Luminaire Tested: **NVN-AF-02-LED-U-SL4-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270848
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-02-LED-U-SL4-7027-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8621.3 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

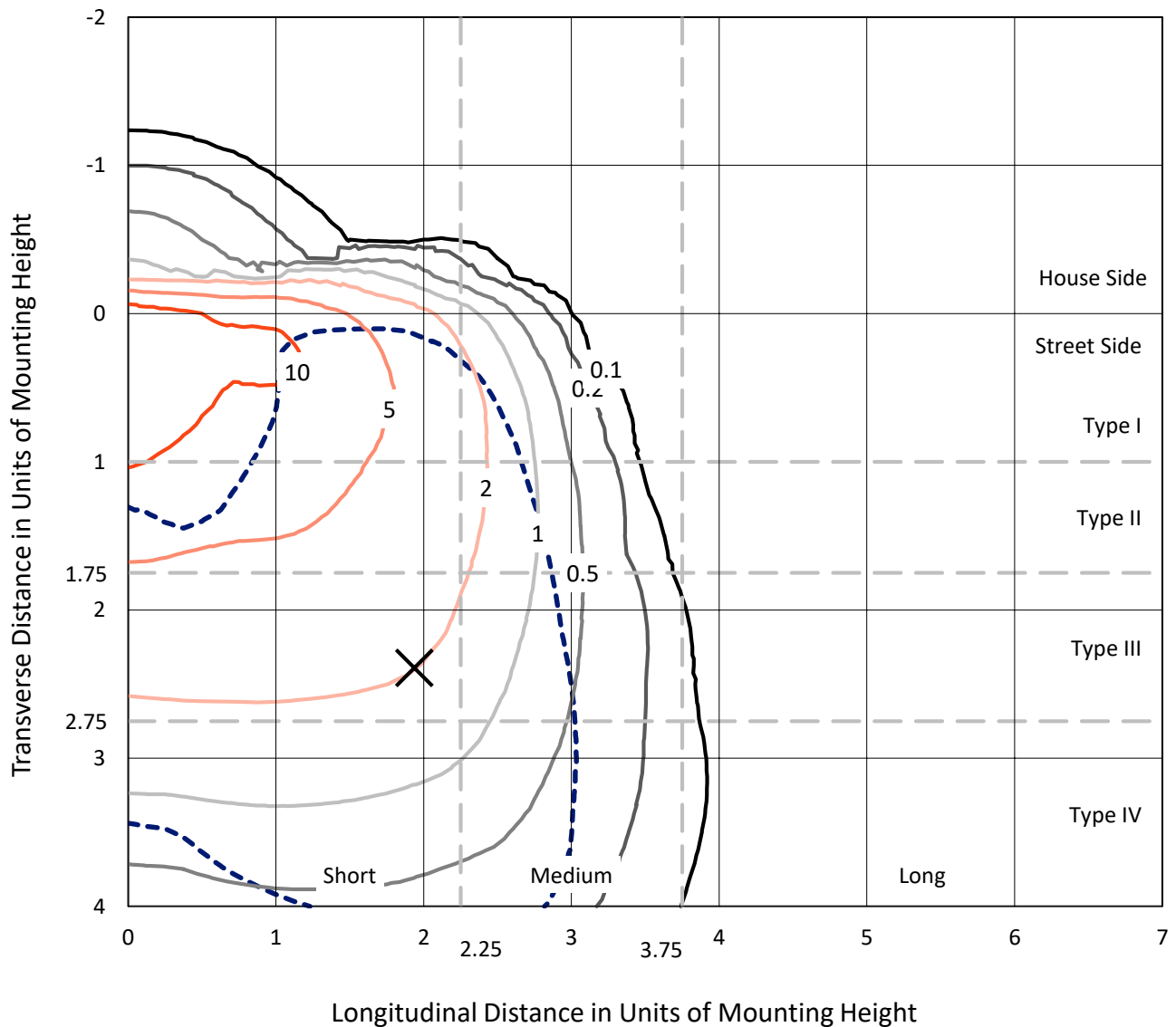
Input Watts (W): 113
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

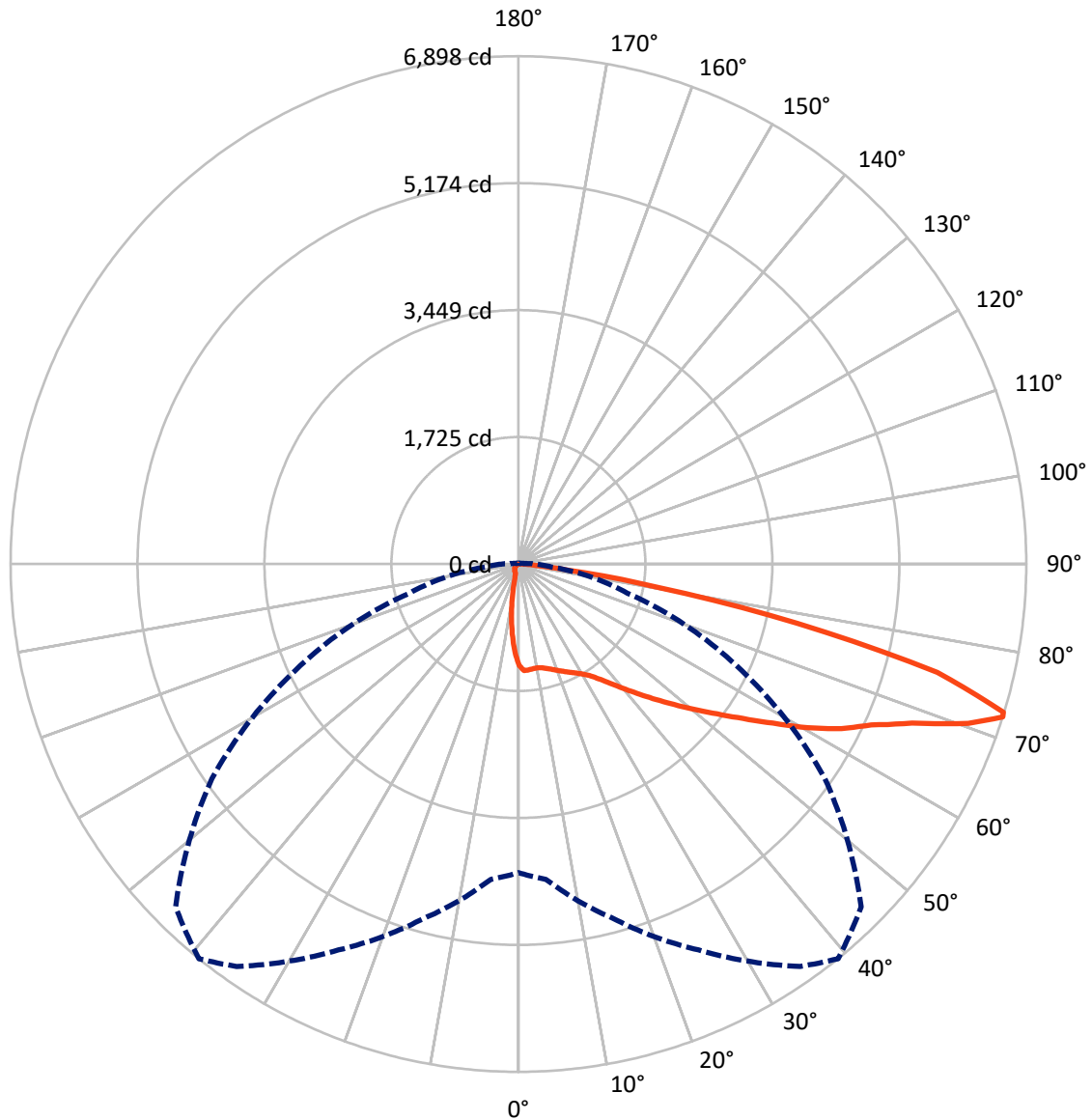
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical



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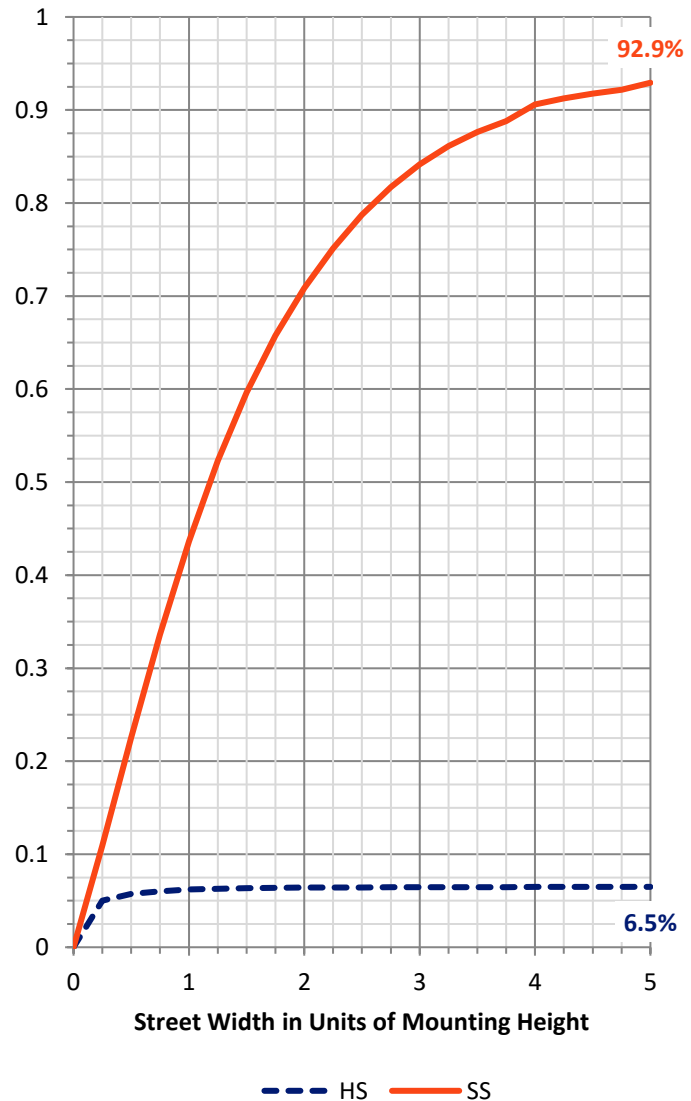
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	565.0	0.0	565.0
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	8056.3	0.0	8056.3
	% Fixture	93.4	0.0	93.4
Total	Lumens	8621.3	0.0	8621.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.2	1.3
10°-20°	271.7	3.2
20°-30°	451.3	5.2
30°-40°	719.3	8.3
40°-50°	1187.2	13.8
50°-60°	1792.9	20.8
60°-70°	2335.6	27.1
70°-80°	1578.2	18.3
80°-90°	172.8	2.0
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°	8621.3	100.0
0°-180°	8621.3	100.0

Coefficient of Utilization



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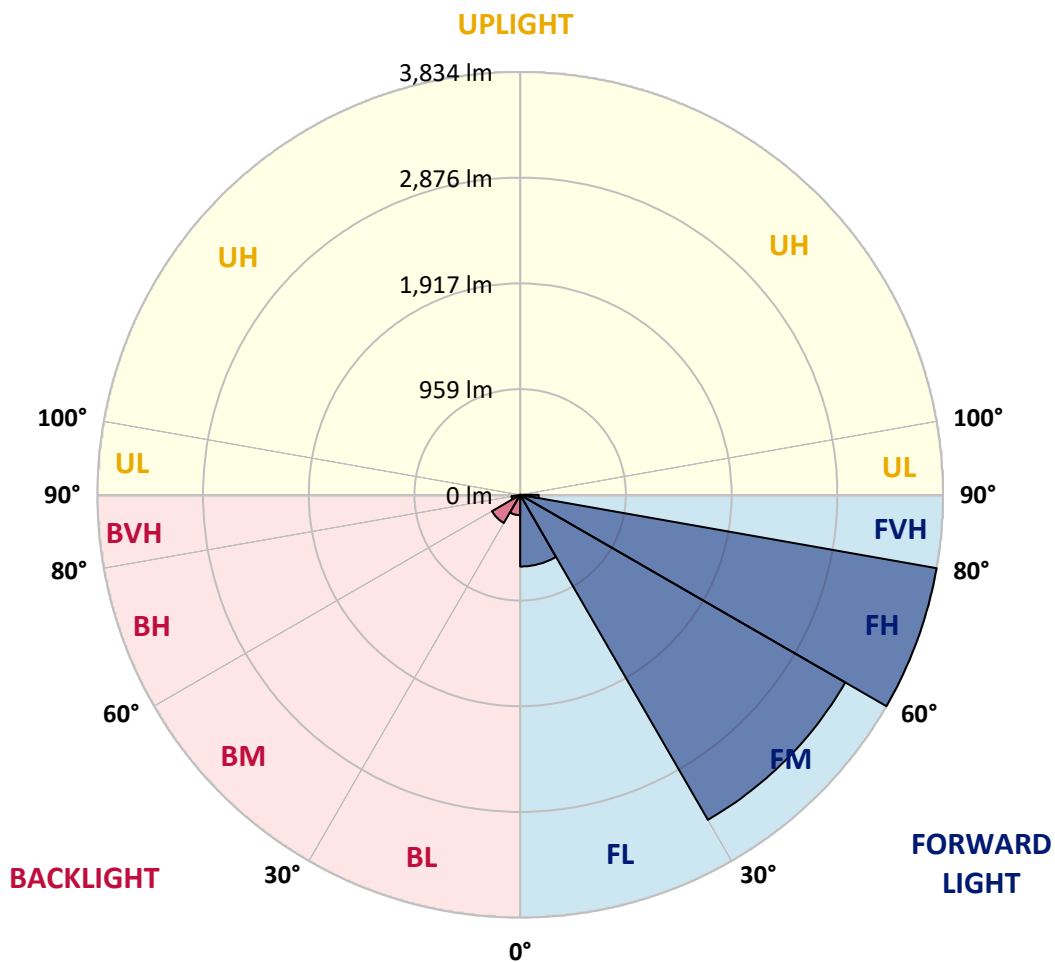
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	650.2	7.5			
FM	(30°-60°)	3403.8	39.5			
FH	(60°-80°)	3834.4	44.5			G2/5000
FVH	(80°-90°)	167.9	1.9			G2/225
BL	(0°-30°)	185.0	2.1	B1/500		
BM	(30°-60°)	295.6	3.4	B1/1000		
BH	(60°-80°)	79.4	0.9	B0/110		G0/110
BVH	(80°-90°)	5.0	0.1			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8
2.5°	1469.4	1472.1	1468.6	1462.6	1453.7	1448.3	1440.9	1424.6	1404.3	1386.7	1366.3
5°	1480.9	1482.3	1478.3	1466.7	1453.1	1445.6	1436.2	1418.6	1397.6	1373.1	1336.5
7.5°	1484.3	1483.6	1478.9	1464.6	1443.5	1434.1	1417.9	1396.1	1374.4	1352.0	1310.7
10°	1482.9	1482.9	1479.5	1465.9	1442.3	1433.4	1415.1	1392.2	1365.0	1342.6	1298.6
12.5°	1478.3	1480.9	1478.9	1471.5	1453.7	1447.0	1430.7	1407.6	1382.0	1358.9	1312.2
15°	1484.3	1488.3	1492.4	1489.7	1479.5	1473.4	1458.5	1434.9	1413.8	1389.4	1339.3
17.5°	1508.7	1517.4	1526.9	1527.7	1516.8	1506.0	1489.0	1464.6	1444.2	1421.8	1367.7
20°	1554.7	1561.6	1579.2	1582.5	1560.8	1545.3	1521.5	1493.2	1472.7	1453.7	1394.1
22.5°	1623.1	1630.7	1644.8	1640.1	1603.6	1585.2	1555.4	1522.8	1501.8	1491.0	1424.6
25°	1726.9	1729.0	1732.3	1711.4	1651.1	1630.7	1594.0	1557.5	1540.6	1539.2	1468.0
27.5°	1848.9	1851.6	1836.8	1790.0	1703.8	1677.5	1636.2	1602.8	1594.8	1604.9	1522.8
30°	1988.5	1989.1	1947.9	1872.0	1764.9	1735.7	1693.0	1656.5	1663.9	1689.0	1593.5
32.5°	2131.5	2124.8	2067.8	1968.8	1848.3	1813.0	1776.4	1739.7	1761.4	1812.3	1696.4
35°	2262.3	2259.6	2192.6	2077.3	1956.7	1925.4	1899.0	1860.4	1895.7	1978.3	1836.8
37.5°	2393.2	2391.1	2314.6	2194.6	2090.1	2067.8	2048.1	2018.3	2076.0	2197.3	2024.4
40°	2537.5	2534.1	2439.8	2324.6	2245.5	2233.1	2221.7	2208.8	2307.0	2475.8	2258.2
42.5°	2715.8	2700.8	2572.7	2466.3	2416.3	2419.6	2420.3	2433.1	2586.9	2807.3	2534.1
45°	2920.4	2887.2	2706.2	2618.1	2603.8	2624.3	2644.6	2698.1	2912.9	3188.9	2839.2
47.5°	3119.1	3065.5	2860.2	2781.5	2810.6	2852.7	2901.4	3005.8	3279.0	3588.0	3115.6
50°	3289.9	3234.8	3012.6	2947.6	3040.5	3102.7	3189.5	3347.4	3665.3	3925.6	3289.9
52.5°	3424.0	3380.6	3173.9	3130.6	3295.3	3380.6	3516.9	3724.3	4029.8	4147.8	3411.9
55°	3523.0	3501.2	3328.4	3334.5	3578.5	3701.8	3871.3	4105.9	4337.6	4320.7	3503.3
57.5°	3634.8	3617.8	3490.5	3575.2	3919.5	4078.8	4274.6	4463.0	4561.2	4459.5	3592.7
60°	3749.3	3754.7	3687.0	3866.6	4341.0	4517.1	4688.1	4734.7	4753.0	4600.6	3687.0
62.5°	3836.0	3859.1	3865.1	4181.0	4773.5	4923.9	4997.7	4964.6	4960.4	4789.7	3679.5
65°	3935.7	3996.0	4096.4	4526.0	5166.5	5265.4	5318.3	5366.5	5264.7	4845.8	3317.6
67.5°	4107.9	4202.7	4428.5	4948.9	5620.5	5766.9	5916.7	5865.9	5310.2	4274.6	2527.3
70°	4339.6	4455.6	4854.0	5501.3	6236.7	6482.0	6607.5	5826.0	4508.5	2953.6	1333.2
72°	4193.3	4298.3	4985.6	5783.3	6673.1	6898.2	6584.3	5081.8	3268.2	1531.0	446.6
72.5°	4050.8	4159.3	4943.6	5779.9	6716.4	6888.7	6434.6	4788.3	2892.0	1191.5	307.7
75°	2810.6	2947.6	4237.9	5195.6	6065.1	5876.2	4923.3	2899.4	1047.9	204.6	101.7
77.5°	1453.1	1558.7	2570.7	3671.4	4227.2	3871.3	2909.6	1257.8	290.2	108.4	67.2
80°	900.7	952.9	1202.3	1808.8	2195.8	1920.8	1283.7	508.4	185.7	64.4	53.5
82.5°	466.3	506.3	757.0	730.0	811.3	674.4	473.8	425.6	114.5	40.0	54.8
85°	153.3	162.7	465.0	485.3	347.0	233.1	210.2	405.9	33.1	25.7	46.7
87.5°	20.3	23.7	163.3	277.8	170.8	105.7	126.0	143.0	11.5	14.3	12.8
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°	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8	1379.8
2.5°	1352.8	1344.0	1316.1	1288.3	1256.5	1227.4	1204.4	1189.4	1196.3	1173.8	1177.3
5°	1314.2	1291.9	1230.8	1165.0	1093.9	1027.5	974.7	935.2	927.8	894.0	895.3
7.5°	1276.9	1240.3	1141.3	1033.0	915.0	819.4	732.7	656.8	629.6	601.9	585.5
10°	1256.5	1206.5	1066.1	908.1	742.1	601.9	479.9	384.2	344.3	315.1	300.9
12.5°	1262.7	1196.3	1009.9	795.0	576.7	398.5	271.1	201.3	176.8	163.3	158.6
15°	1283.0	1198.2	959.0	684.5	419.5	241.3	159.3	136.3	134.1	133.5	132.8
17.5°	1302.0	1200.2	905.5	569.3	280.6	153.9	128.1	126.0	126.0	126.0	126.0
20°	1321.5	1200.9	846.6	448.7	184.3	126.0	120.6	119.3	120.6	120.6	120.6
22.5°	1344.7	1205.7	789.6	331.5	136.3	118.5	115.3	114.5	115.3	115.3	114.5
25°	1373.1	1215.9	727.8	237.2	123.3	113.8	110.5	109.9	110.5	109.9	109.9
27.5°	1411.1	1229.4	656.0	170.0	117.9	109.1	105.7	105.7	105.7	105.0	105.0
30°	1459.8	1245.7	559.9	134.1	112.5	104.4	101.7	101.7	101.0	100.3	100.3
32.5°	1529.6	1272.1	454.8	121.4	106.4	98.3	95.6	96.3	95.6	95.0	94.2
35°	1628.6	1313.5	351.1	114.5	100.3	92.2	89.6	89.6	89.6	88.2	88.2
37.5°	1768.9	1376.6	262.9	107.7	94.2	86.1	82.6	82.6	82.0	80.7	81.3
40°	1942.4	1455.9	190.4	101.7	88.2	79.3	76.5	75.2	73.9	72.6	72.6
42.5°	2151.3	1533.0	143.0	95.6	82.0	73.9	70.4	69.1	66.5	65.0	64.4
45°	2385.0	1615.2	118.5	88.2	75.2	67.8	65.0	62.3	59.0	57.0	56.2
47.5°	2582.3	1665.3	105.7	80.7	68.5	61.7	59.0	54.8	50.8	49.4	49.4
50°	2700.8	1644.2	95.0	73.2	61.7	55.5	52.2	46.7	44.0	42.7	42.0
52.5°	2767.3	1581.8	86.1	67.2	55.5	48.8	44.0	39.3	38.0	36.7	36.7
55°	2812.7	1491.7	76.5	60.9	50.1	42.7	37.3	33.9	32.5	31.9	31.3
57.5°	2856.0	1382.0	67.8	55.5	44.7	38.0	31.9	30.5	27.8	27.0	27.0
60°	2868.8	1230.8	59.6	49.4	40.0	33.1	27.8	25.7	23.0	22.4	22.4
62.5°	2704.8	979.3	52.9	42.0	35.3	28.4	24.4	21.6	19.0	19.0	19.0
65°	2260.2	664.8	45.5	36.7	31.3	24.4	21.0	17.6	16.3	16.3	16.3
67.5°	1574.4	370.7	38.6	31.3	26.4	20.3	17.6	14.9	14.3	14.9	14.9
70°	709.7	147.1	32.5	25.7	21.6	17.0	14.9	12.8	14.3	14.3	14.3
72°	212.8	78.6	27.0	21.0	17.6	14.9	12.8	12.1	13.6	14.3	14.3
72.5°	157.9	70.4	25.7	20.3	17.6	14.3	12.1	12.1	13.6	14.3	14.3
75°	81.3	48.1	19.7	14.9	12.8	11.5	10.2	11.5	13.6	13.6	13.6
77.5°	63.7	39.3	16.3	11.5	10.8	10.2	9.5	10.8	12.1	12.1	12.1
80°	59.6	25.7	12.8	10.8	9.5	8.9	8.9	9.5	10.8	11.5	11.5
82.5°	60.4	21.0	11.5	10.2	8.9	8.2	8.2	8.9	10.2	10.8	10.8
85°	38.6	14.3	10.2	8.9	8.2	7.5	7.5	8.2	9.5	10.2	10.2
87.5°	12.8	10.8	8.9	8.2	6.7	6.7	6.7	6.7	8.2	8.9	9.5
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)