

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: P197040

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-8030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197040
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-SL2-8030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26303 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 382
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: 25 FT

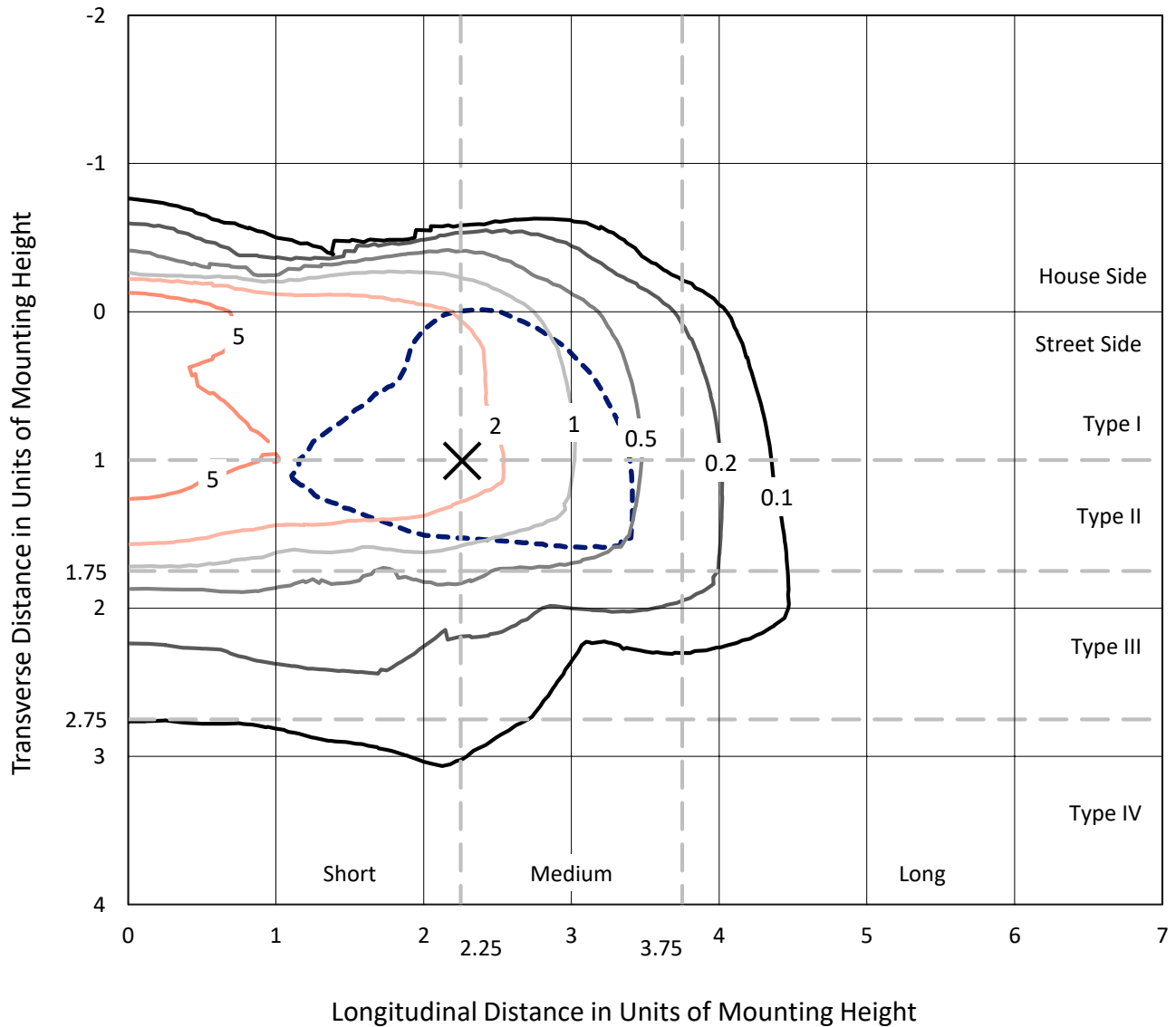


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

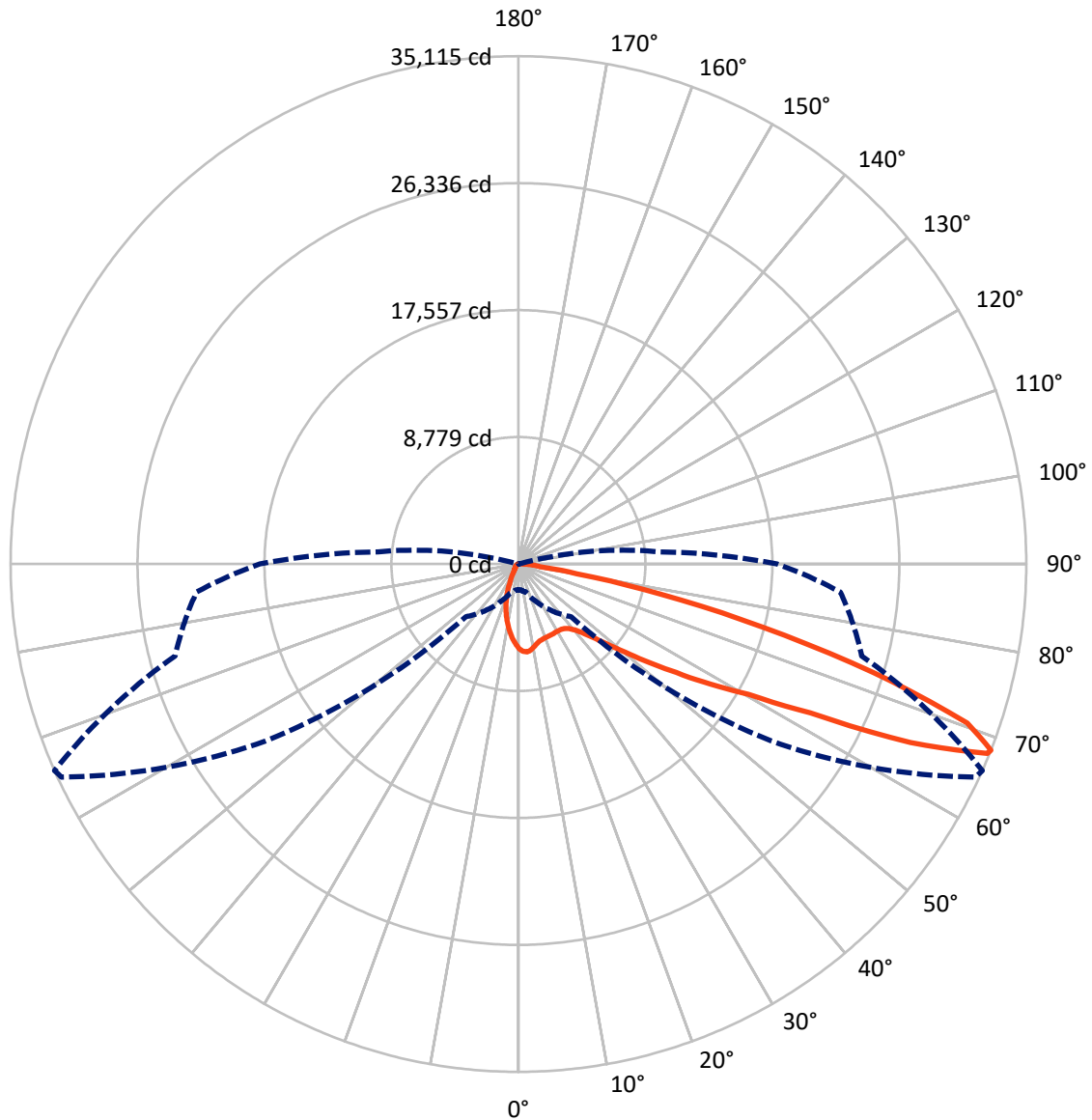


Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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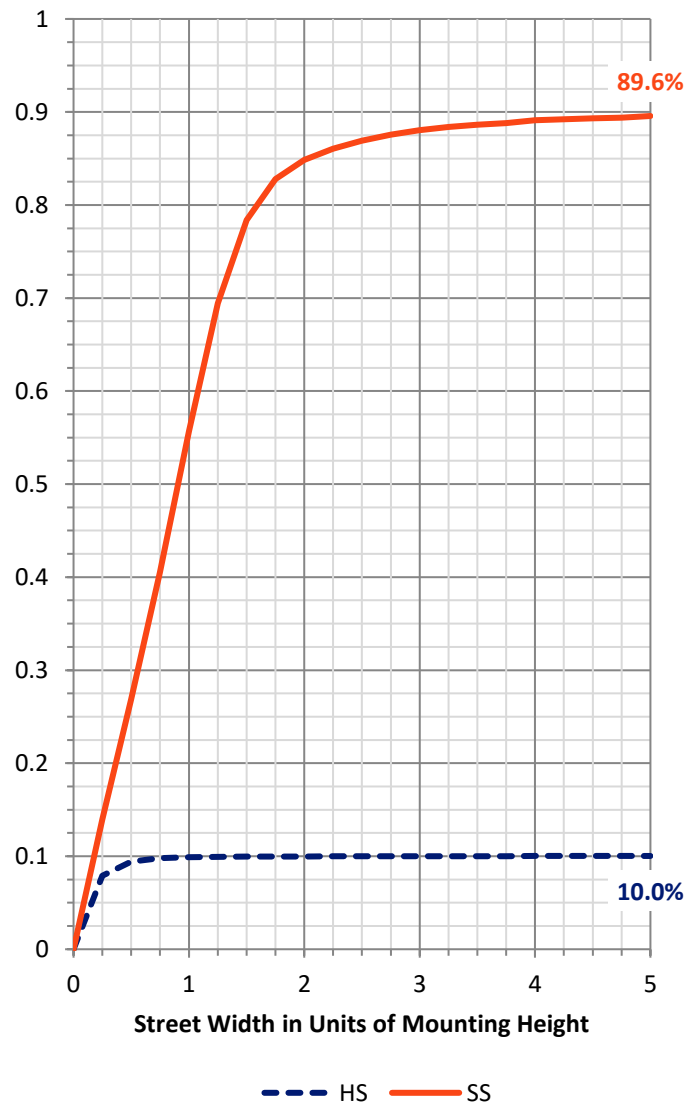
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2664.2	0.0	2664.2
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	23638.8	0.0	23638.8
	% Fixture	89.9	0.0	89.9
Total	Lumens	26303.0	0.0	26303.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.4	1.8
10°-20°	1033.6	3.9
20°-30°	1497.8	5.7
30°-40°	2292.9	8.7
40°-50°	3921.8	14.9
50°-60°	6134.9	23.3
60°-70°	7064.1	26.9
70°-80°	3535.0	13.4
80°-90°	342.4	1.3
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°	26303.0	100.0
0°-180°	26303.0	100.0



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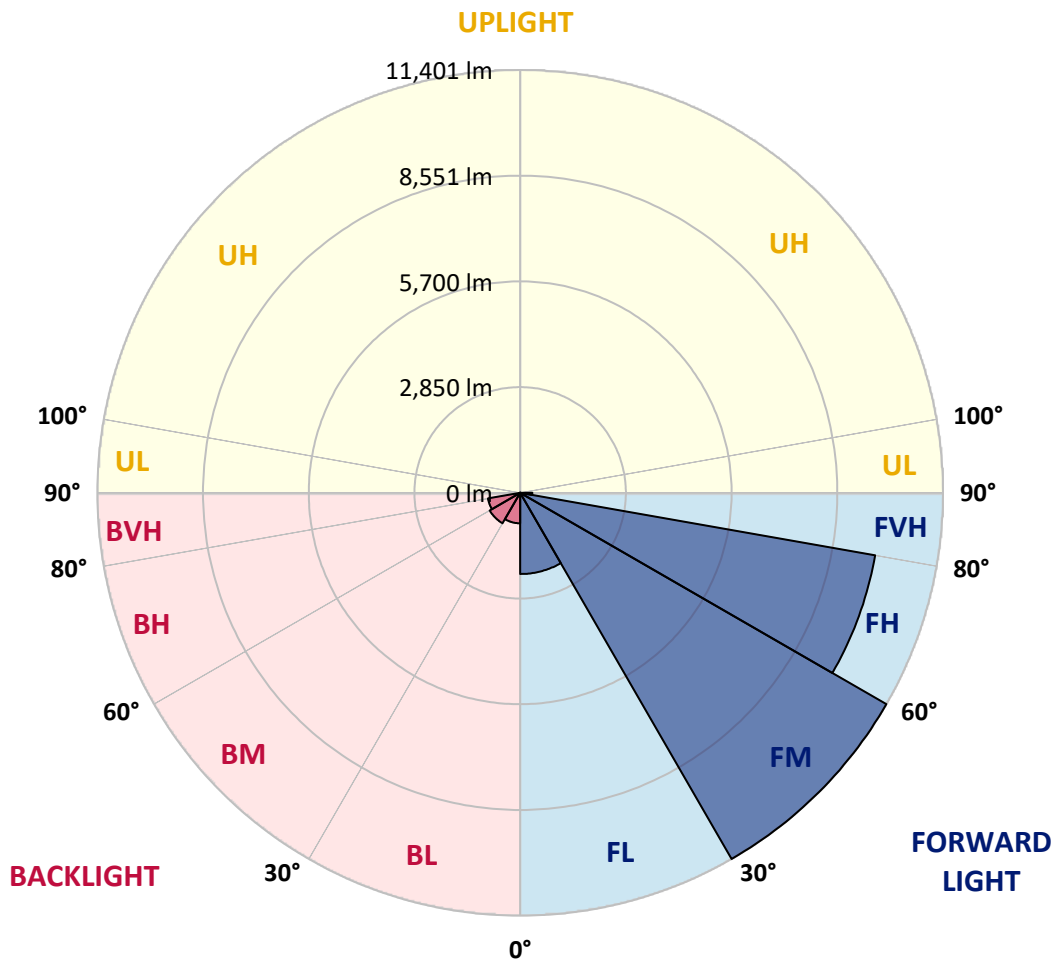
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2189.6	8.3			
FM (30°-60°)	11400.9	43.3			
FH (60°-80°)	9718.9	36.9			G4/12000
FVH (80°-90°)	329.4	1.3			G3/500
BL (0°-30°)	822.3	3.1	B2/1000		
BM (30°-60°)	948.7	3.6	B1/1000		
BH (60°-80°)	880.2	3.3	B2/1000		G2/1000
BVH (80°-90°)	13.0	0.0			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1
2.5°	6163.6	6167.7	6165.7	6171.9	6167.7	6136.8	6103.7	6033.5	6039.7	5948.8	5847.7
5°	5730.0	5765.1	5800.2	5835.3	5919.9	5994.3	6083.1	6103.7	6103.7	6025.2	5876.6
7.5°	5288.1	5290.2	5329.4	5376.9	5490.5	5626.7	5833.2	6019.1	6023.2	6043.8	5880.7
10°	4955.7	4966.0	4992.8	5044.4	5158.0	5292.2	5523.5	5814.6	5837.3	5990.1	5839.4
12.5°	4697.5	4709.9	4738.8	4798.7	4902.0	5040.3	5284.0	5616.4	5647.4	5938.5	5827.0
15°	4499.3	4515.8	4538.6	4598.4	4709.9	4856.5	5122.9	5484.3	5521.4	5917.9	5866.3
17.5°	4416.7	4416.7	4414.7	4456.0	4567.5	4716.1	4994.9	5414.1	5461.5	5934.4	5932.3
20°	4451.8	4445.6	4402.3	4391.9	4460.1	4608.8	4893.7	5368.6	5422.3	5965.4	6012.9
22.5°	4637.7	4625.3	4528.2	4447.7	4427.1	4526.2	4825.6	5337.7	5401.7	6029.4	6120.2
25°	5032.1	4994.9	4860.7	4679.0	4515.8	4505.5	4778.1	5321.1	5389.3	6103.7	6237.9
27.5°	5544.1	5533.8	5319.1	5075.4	4761.6	4573.7	4763.6	5308.7	5376.9	6157.4	6332.9
30°	6180.1	6184.2	5936.5	5618.5	5143.6	4765.7	4809.0	5302.5	5372.8	6161.5	6374.2
32.5°	6836.7	6840.9	6634.4	6293.7	5666.0	5096.1	4937.1	5331.5	5395.5	6145.0	6372.1
35°	7468.6	7474.8	7350.9	7076.3	6363.9	5554.5	5178.7	5430.6	5476.0	6155.3	6368.0
37.5°	8267.7	8292.5	8139.7	7883.6	7239.4	6227.6	5573.0	5630.9	5668.0	6240.0	6399.0
40°	9630.5	9597.4	9159.7	8726.1	8189.2	7047.4	6142.9	5975.7	5988.1	6458.9	6516.7
42.5°	11218.4	11177.1	10427.5	9680.0	9165.9	8036.4	6871.8	6504.3	6502.2	6826.4	6772.7
45°	12585.3	12560.5	11771.7	10774.4	10247.9	9128.7	7770.1	7266.2	7241.4	7462.4	7239.4
47.5°	13555.8	13535.1	12938.4	11939.0	11499.2	10330.5	8891.3	8304.8	8253.2	8294.5	7997.2
50°	13650.8	13628.0	13419.5	12777.3	12961.1	12093.9	10276.8	9665.6	9599.5	9535.5	9143.2
52.5°	12762.9	12760.8	12870.2	12828.9	13985.3	14363.1	11976.2	11348.4	11270.0	11106.9	10716.6
55°	10947.9	10937.5	11352.6	11955.5	13962.6	16704.7	14567.6	13351.4	13248.1	12921.9	12409.8
57.5°	7999.3	7945.6	8812.8	10090.9	12981.7	17728.8	18682.8	15839.5	15668.1	14633.6	13844.9
60°	4416.7	4437.4	5552.4	7065.9	10658.8	17526.5	22469.8	18740.6	18290.5	16110.0	15315.0
62.5°	2475.8	2527.4	3357.5	4592.2	6795.4	15884.9	24501.6	23733.4	22649.4	17832.1	17173.4
65°	1872.8	1903.8	2320.9	3543.3	4284.6	11100.7	24825.8	30714.7	29779.3	20442.1	20132.3
67.5°	1763.4	1788.2	1992.6	2938.3	3902.6	5756.8	22385.1	34844.4	34962.1	24001.9	22424.3
68°	1775.8	1806.7	2011.2	2826.8	3896.4	5149.7	21344.4	34865.1	35114.9	24575.9	22345.9
70°	1631.2	1639.5	2126.8	2773.1	3776.6	4057.4	15441.0	32476.0	32924.1	25259.4	20285.1
72.5°	623.6	625.7	954.0	2401.4	3956.3	4080.2	7778.3	25668.2	25690.9	21982.5	15814.7
75°	324.2	272.6	299.4	751.6	3778.7	3976.9	3902.6	17526.5	17417.1	14867.0	9690.4
77.5°	223.0	190.0	200.3	260.2	1571.4	3974.8	2818.5	10078.6	10055.8	6324.7	2764.8
80°	126.0	109.4	119.8	218.9	551.3	3731.2	2626.5	4332.1	4082.2	1110.9	448.1
82.5°	64.0	53.7	64.0	183.8	342.8	2347.7	2554.2	1699.4	1513.5	264.3	291.1
85°	16.5	16.5	31.0	128.0	212.7	770.2	2289.9	1226.5	1102.6	115.6	206.5
87.5°	4.1	2.1	12.4	47.5	76.4	167.3	1269.9	683.5	588.5	59.9	119.8
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°	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1	5860.1
2.5°	5806.4	5748.6	5635.0	5507.0	5416.1	5317.0	5259.2	5189.0	5135.3	5087.8	5122.9
5°	5785.7	5674.2	5422.3	5139.4	4902.0	4674.8	4505.5	4344.5	4222.6	4146.2	4177.2
7.5°	5732.0	5566.9	5158.0	4716.1	4327.9	3962.5	3665.1	3398.8	3192.3	3080.8	3115.9
10°	5641.2	5407.9	4858.6	4245.3	3702.3	3186.1	2744.2	2347.7	2048.3	1907.9	1941.0
12.5°	5575.1	5267.4	4548.9	3791.1	3076.6	2343.6	1757.2	1302.9	1069.6	929.2	941.6
15°	5546.2	5158.0	4259.8	3312.0	2393.2	1505.3	949.8	687.6	607.1	578.2	580.2
17.5°	5550.3	5071.3	3985.2	2814.4	1703.5	865.2	582.3	524.5	512.1	505.9	505.9
20°	5560.7	4984.6	3700.2	2296.1	1090.2	557.5	485.2	466.7	460.5	452.2	454.3
22.5°	5591.6	4918.5	3413.2	1775.8	671.1	454.3	429.5	413.0	402.6	390.3	392.3
25°	5639.1	4868.9	3130.3	1278.1	472.9	396.5	373.7	351.0	332.4	318.0	320.1
27.5°	5668.0	4798.7	2828.9	871.4	392.3	346.9	315.9	285.0	264.3	251.9	249.8
30°	5647.4	4685.2	2486.1	572.0	346.9	299.4	262.2	227.1	206.5	196.2	196.2
32.5°	5591.6	4538.6	2108.2	417.1	307.7	258.1	212.7	181.7	167.3	161.1	163.1
35°	5527.6	4385.8	1705.6	353.1	276.7	218.9	173.4	148.7	142.5	140.4	140.4
37.5°	5492.5	4253.6	1319.4	320.1	247.8	181.7	142.5	128.0	121.8	121.8	121.8
40°	5531.7	4152.4	976.7	295.3	218.9	150.7	119.8	109.4	107.4	107.4	107.4
42.5°	5699.0	4117.3	714.4	274.6	190.0	126.0	103.2	95.0	92.9	95.0	95.0
45°	6025.2	4193.7	541.0	254.0	163.1	103.2	88.8	82.6	82.6	84.7	84.7
47.5°	6578.6	4389.9	443.9	233.3	136.3	86.7	76.4	72.3	72.3	74.3	74.3
50°	7437.6	4753.3	398.5	210.6	113.6	74.3	64.0	61.9	61.9	64.0	66.1
52.5°	8742.6	5445.0	375.8	187.9	92.9	61.9	53.7	51.6	53.7	55.8	55.8
55°	10194.2	6330.8	349.0	165.2	78.5	51.6	43.4	43.4	45.4	49.6	49.6
57.5°	11546.7	7185.7	324.2	136.3	68.1	41.3	35.1	35.1	39.2	43.4	43.4
60°	12975.6	8024.0	291.1	109.4	57.8	33.0	28.9	28.9	35.1	39.2	41.3
62.5°	14741.0	8998.6	247.8	86.7	45.4	24.8	20.6	26.8	33.0	39.2	39.2
65°	17293.2	10210.7	194.1	68.1	35.1	18.6	16.5	24.8	31.0	37.2	39.2
67.5°	18220.3	10055.8	146.6	55.8	26.8	14.5	14.5	22.7	31.0	37.2	37.2
68°	17881.6	9717.2	140.4	53.7	24.8	14.5	14.5	22.7	31.0	37.2	37.2
70°	15581.4	7943.5	115.6	41.3	20.6	12.4	12.4	20.6	31.0	35.1	37.2
72.5°	11666.4	5277.8	99.1	26.8	18.6	12.4	10.3	20.6	28.9	35.1	35.1
75°	6692.2	2190.8	84.7	20.6	16.5	10.3	10.3	18.6	28.9	35.1	35.1
77.5°	1891.4	512.1	68.1	16.5	14.5	10.3	8.3	18.6	26.8	33.0	33.0
80°	346.9	152.8	53.7	14.5	12.4	10.3	8.3	18.6	26.8	33.0	33.0
82.5°	229.2	72.3	39.2	14.5	12.4	10.3	8.3	16.5	24.8	31.0	31.0
85°	171.4	51.6	24.8	14.5	12.4	10.3	8.3	16.5	24.8	31.0	31.0
87.5°	95.0	22.7	18.6	16.5	14.5	10.3	8.3	14.5	22.7	28.9	28.9
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)