

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: P212886

Luminaire Tested: **NFFLD-C40-D-UNV-33**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P212886
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-16-1196-4)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NFFLD-C40-D-UNV-33
Description: NIGHT FALCON LED FLOOD LIGHT
Light Source: (8) 4000K CCT, 72 CRI LEDS
CLU028-1204C4-40ALK3
Ballast/Driver: OSRAM
OT180/UNV/1250C/2DIMLT2

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14261.7 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1.33' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G1

Input Watts (W): 142.8
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

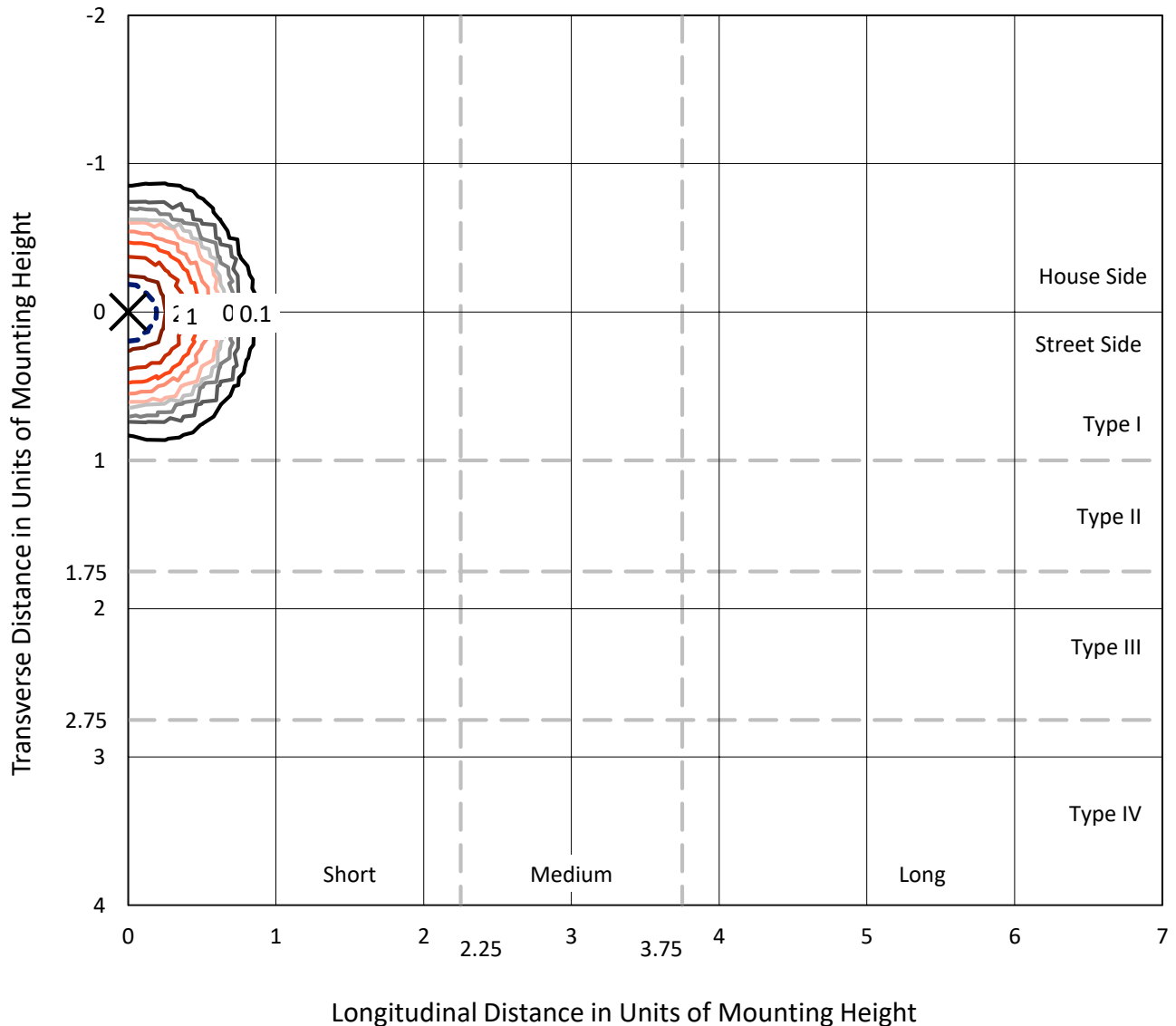


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

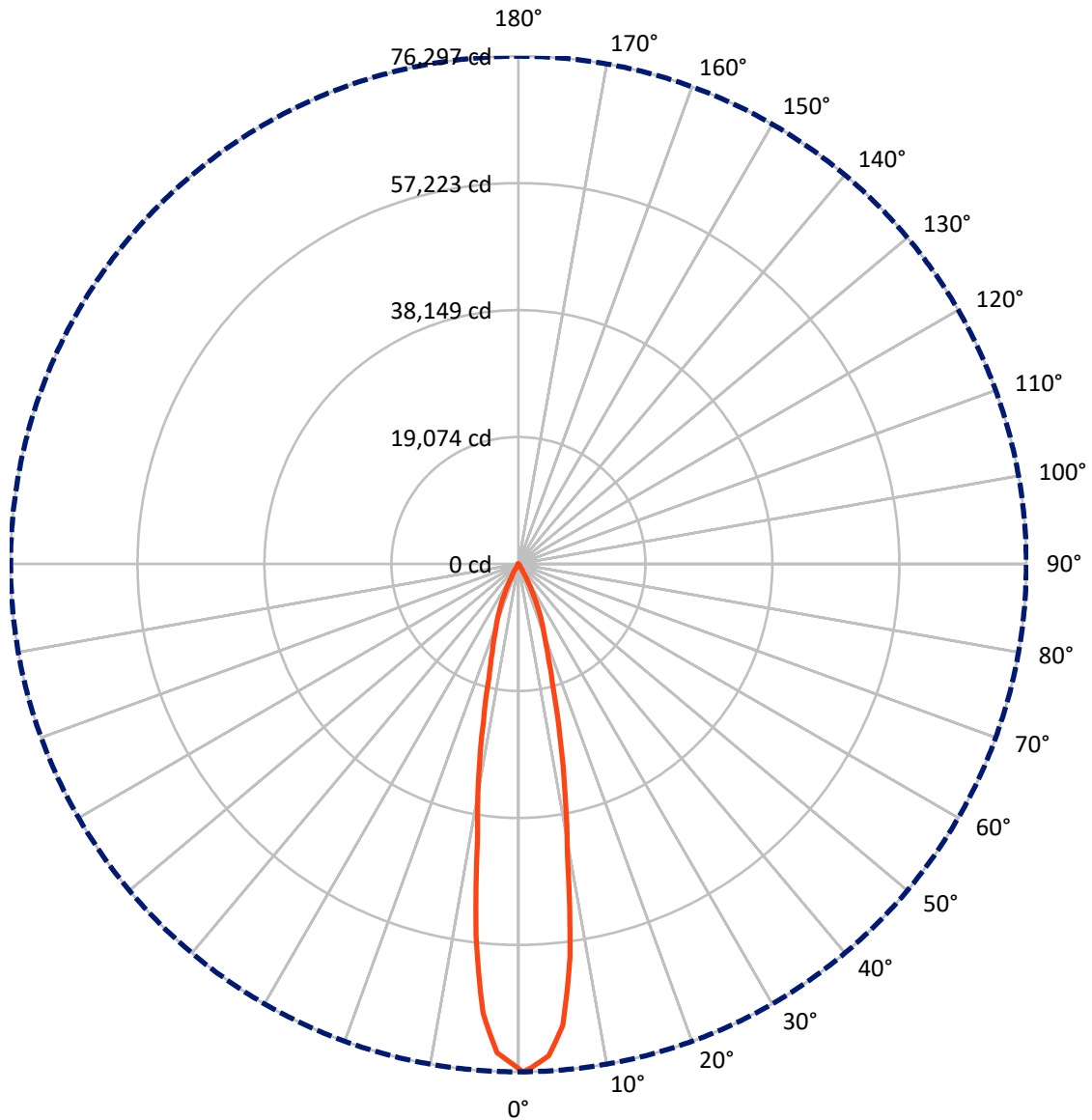


Based on 20 foot mounting height. Maximum calculated value = 190.7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 0-Deg Vertical

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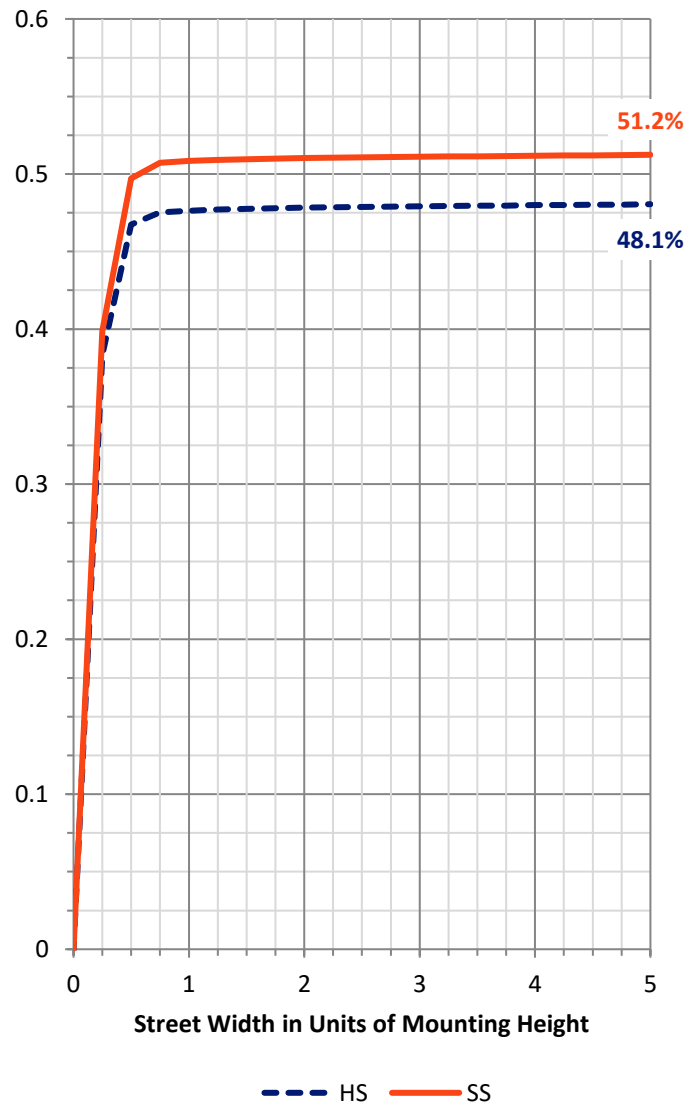
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6968.1	0.0	6968.1
	% Fixture	48.9	0.0	48.9
Street Side	Lumens	7293.6	0.0	7293.6
	% Fixture	51.1	0.0	51.1
Total	Lumens	14261.7	0.0	14261.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5445.7	38.2
10°-20°	5635.7	39.5
20°-30°	2665.3	18.7
30°-40°	494.2	3.5
40°-50°	57.1	0.4
50°-60°	33.9	0.2
60°-70°	28.8	0.2
70°-80°	53.3	0.4
80°-90°	37.6	0.3
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°	14261.7	100.0
0°-180°	14261.7	100.0



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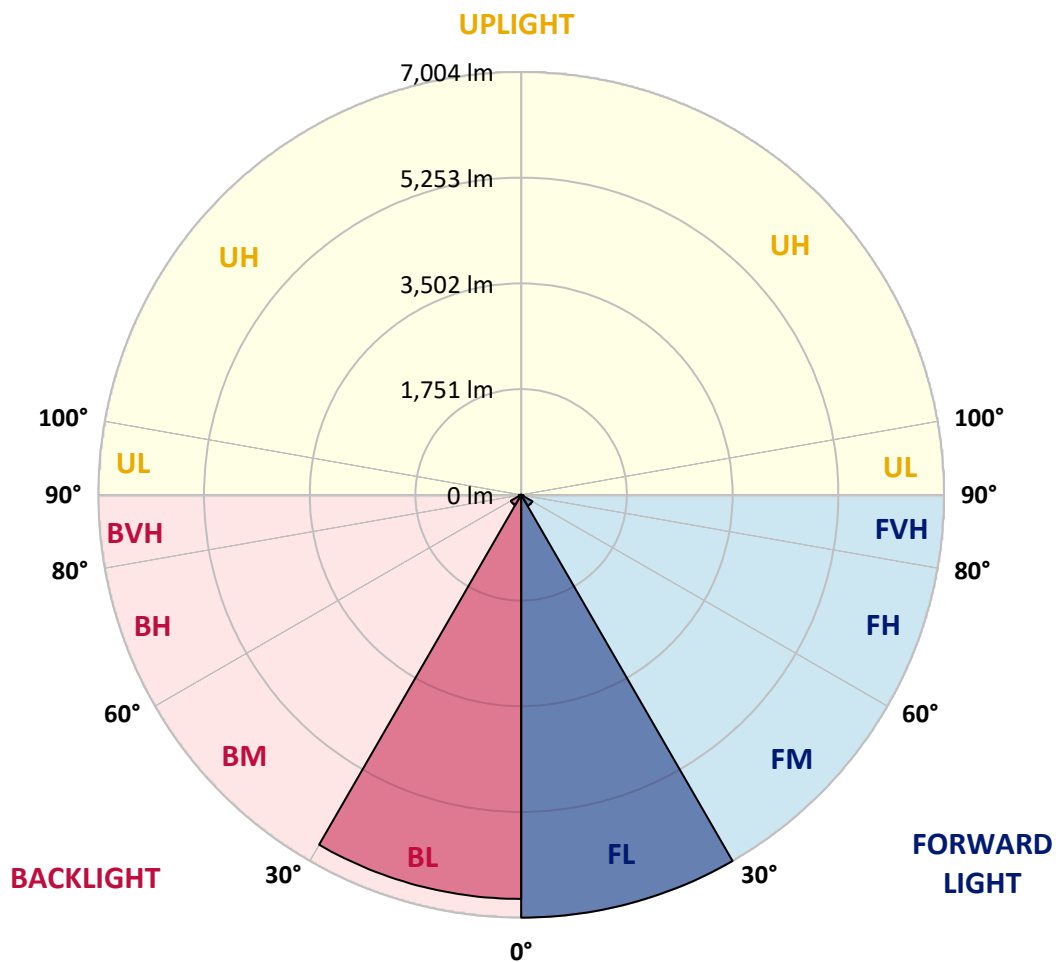
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7004.3	49.1			
FM	(30°-60°)	215.4	1.5			
FH	(60°-80°)	36.4	0.3			G0/660
FVH	(80°-90°)	36.4	0.3			G1/100
BL	(0°-30°)	6694.4	46.9	B5		
BM	(30°-60°)	197.8	1.4	B0/220		
BH	(60°-80°)	37.5	0.3	B0/110		G0/660
BVH	(80°-90°)	37.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0
1°	75652.2	75653.0	75674.1	75715.7	75777.0	75856.5	75951.7	76059.5	76176.0	76297.0	76112.6
3°	74030.6	73946.7	73928.2	73589.4	73378.7	73303.4	73366.0	73563.7	73527.0	73560.2	73401.3
5°	69618.4	69571.1	68894.6	68586.0	68489.5	68267.8	67996.3	67959.8	68363.7	68396.4	68152.3
7°	59429.4	59328.5	58666.2	58323.1	58307.9	58175.3	57711.0	57544.7	57729.7	57665.3	57064.8
9°	44557.1	44722.7	45266.6	45069.3	44858.5	45008.1	44999.5	44800.4	44019.6	43877.4	43493.5
11°	35174.5	35029.2	35091.4	34866.4	35208.9	35035.2	34788.4	34803.4	34576.0	34446.9	34128.5
13°	26882.2	26803.3	26899.2	26970.3	26902.6	26813.5	26770.3	26631.4	26327.8	26221.4	25841.7
15°	19710.1	19862.0	19960.6	19817.0	19898.9	19832.6	19545.1	19611.2	19202.2	18929.7	18826.8
17°	15111.5	15207.8	15208.1	15149.6	15120.1	14976.4	14939.4	14832.3	14663.8	14434.8	14441.3
19.5°	11345.1	11387.8	11492.8	11481.7	11486.7	11425.3	11311.7	11284.4	11114.8	11231.5	10962.4
22.5°	8259.4	8247.3	8255.4	8378.8	8400.9	8383.4	8328.2	8250.2	8203.7	8476.7	8088.2
25.5°	5197.6	5237.6	5377.5	5574.5	5654.6	5657.6	5622.5	5587.9	5524.4	5471.7	5420.5
29°	2120.9	2228.0	2483.6	2561.9	2697.1	2687.0	2721.8	2756.7	2568.8	2430.9	2472.3
33°	317.9	410.6	644.4	524.8	652.2	642.0	701.2	745.9	568.1	415.6	545.9
37.5°	76.7	104.2	133.6	121.0	122.5	119.9	131.2	118.2	115.4	95.7	114.6
42.5°	72.8	89.8	94.5	97.7	95.0	82.7	79.9	73.1	79.0	84.7	73.6
47.5°	32.9	63.7	66.6	76.1	68.3	63.5	56.0	53.4	58.8	64.8	49.7
55°	4.0	43.8	41.0	39.1	27.3	20.2	14.7	15.6	13.6	12.0	17.6
65°	4.0	43.9	49.1	29.0	22.2	22.5	20.3	18.2	22.8	21.9	21.3
75°	0.0	40.7	34.2	33.8	22.8	31.0	43.0	40.0	55.4	42.9	56.4
85°	4.0	23.7	47.2	107.7	113.1	125.7	126.4	137.0	140.4	150.5	133.0
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0
1°	75934.5	75768.8	75620.8	75495.4	75396.3	75326.4	75287.2	75279.4	75287.2	75326.4	75396.3
3°	73302.3	72900.0	72687.2	72678.6	72874.1	73259.7	73331.4	73487.4	73331.4	73259.7	72874.1
5°	67424.2	67119.2	67022.3	66778.8	66603.2	66821.3	67514.3	67700.8	67514.3	66821.3	66603.2
7°	56352.6	56185.2	56404.7	56076.7	55152.0	54880.9	55616.2	56112.5	55616.2	54880.9	55152.0
9°	43689.0	43324.4	42835.4	42577.2	42528.6	41866.4	41340.6	41410.6	41340.6	41866.4	42528.6
11°	33900.1	33543.3	33321.6	33059.3	32974.2	32530.6	32525.6	32891.1	32525.6	32530.6	32974.2
13°	25690.7	25439.8	25159.7	24891.7	24709.4	24526.6	24128.3	24368.6	24128.3	24526.6	24709.4
15°	18870.9	18512.6	18492.4	18321.8	17967.1	18174.2	17830.4	17670.0	17830.4	18174.2	17967.1
17°	14400.5	14279.5	14118.8	14096.3	14015.9	14007.5	13935.4	13805.9	13935.4	14007.5	14015.9
19.5°	11020.6	10933.6	10855.2	10747.6	10688.6	10710.5	10637.7	10550.7	10637.7	10710.5	10688.6
22.5°	8037.9	8027.6	8044.8	7935.6	7892.0	7808.1	7790.0	7736.1	7790.0	7808.1	7892.0
25.5°	5390.2	5316.7	5272.1	5236.1	5100.9	5072.6	4911.4	4836.8	4911.4	5072.6	5100.9
29°	2595.5	2461.6	2372.0	2372.5	2244.9	2274.8	2045.4	1915.6	2045.4	2274.8	2244.9
33°	680.3	600.3	531.5	537.2	422.6	550.6	349.9	235.2	349.9	550.6	422.6
37.5°	119.0	110.2	107.4	110.5	112.1	130.1	110.9	105.6	110.9	130.1	112.1
42.5°	72.0	67.6	80.7	97.9	100.2	98.6	88.3	72.8	88.3	98.6	100.2
47.5°	50.8	43.4	59.1	71.5	83.1	71.4	61.5	40.9	61.5	71.4	83.1
55°	7.7	14.1	23.2	37.6	37.5	47.0	42.0	12.0	42.0	47.0	37.5
65°	13.7	17.1	30.7	25.8	34.1	42.7	43.8	4.0	43.8	42.7	34.1
75°	36.3	41.4	42.2	26.0	41.3	30.3	42.9	0.0	42.9	30.3	41.3
85°	137.1	128.2	128.6	120.2	100.9	55.9	42.4	0.0	42.4	55.9	100.9
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0	76297.0
1°	75495.4	75620.8	75768.8	75934.5	76112.6	76297.0	76176.0	76059.5	75951.7	75856.5	75777.0
3°	72678.6	72687.2	72900.0	73302.3	73401.3	73560.2	73527.0	73563.7	73366.0	73303.4	73378.7
5°	66778.8	67022.3	67119.2	67424.2	68152.3	68396.4	68363.7	67959.8	67996.3	68267.8	68489.5
7°	56076.7	56404.7	56185.2	56352.6	57064.8	57665.3	57729.7	57544.7	57711.0	58175.3	58307.9
9°	42577.2	42835.4	43324.4	43689.0	43493.5	43877.4	44019.6	44800.4	44999.5	45008.1	44858.5
11°	33059.3	33321.6	33543.3	33900.1	34128.5	34446.9	34576.0	34803.4	34788.4	35035.2	35208.9
13°	24891.7	25159.7	25439.8	25690.7	25841.7	26221.4	26327.8	26631.4	26770.3	26813.5	26902.6
15°	18321.8	18492.4	18512.6	18870.9	18826.8	18929.7	19202.2	19611.2	19545.1	19832.6	19898.9
17°	14096.3	14118.8	14279.5	14400.5	14441.3	14434.8	14663.8	14832.3	14939.4	14976.4	15120.1
19.5°	10747.6	10855.2	10933.6	11020.6	10962.4	11231.5	11114.8	11284.4	11311.7	11425.3	11486.7
22.5°	7935.6	8044.8	8027.6	8037.9	8088.2	8476.7	8203.7	8250.2	8328.2	8383.4	8400.9
25.5°	5236.1	5272.1	5316.7	5390.2	5420.5	5471.7	5524.4	5587.9	5622.5	5657.6	5654.6
29°	2372.5	2372.0	2461.6	2595.5	2472.3	2430.9	2568.8	2756.7	2721.8	2687.0	2697.1
33°	537.2	531.5	600.3	680.3	545.9	415.6	568.1	745.9	701.2	642.0	652.2
37.5°	110.5	107.4	110.2	119.0	114.6	95.7	115.4	118.2	131.2	119.9	122.5
42.5°	97.9	80.7	67.6	72.0	73.6	84.7	79.0	73.1	79.9	82.7	95.0
47.5°	71.5	59.1	43.4	50.8	49.7	64.8	58.8	53.4	56.0	63.5	68.3
55°	37.6	23.2	14.1	7.7	17.6	12.0	13.6	15.6	14.7	20.2	27.3
65°	25.8	30.7	17.1	13.7	21.3	21.9	22.8	18.2	20.3	22.5	22.2
75°	26.0	42.2	41.4	36.3	56.4	42.9	55.4	40.0	43.0	31.0	22.8
85°	120.2	128.6	128.2	137.1	133.0	150.5	140.4	137.0	126.4	125.7	113.1
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):

	330°	340°	350°	360°
0°	76297.0	76297.0	76297.0	76297.0
1°	75715.7	75674.1	75653.0	75652.2
3°	73589.4	73928.2	73946.7	74030.6
5°	68586.0	68894.6	69571.1	69618.4
7°	58323.1	58666.2	59328.5	59429.4
9°	45069.3	45266.6	44722.7	44557.1
11°	34866.4	35091.4	35029.2	35174.5
13°	26970.3	26899.2	26803.3	26882.2
15°	19817.0	19960.6	19862.0	19710.1
17°	15149.6	15208.1	15207.8	15111.5
19.5°	11481.7	11492.8	11387.8	11345.1
22.5°	8378.8	8255.4	8247.3	8259.4
25.5°	5574.5	5377.5	5237.6	5197.6
29°	2561.9	2483.6	2228.0	2120.9
33°	524.8	644.4	410.6	317.9
37.5°	121.0	133.6	104.2	76.7
42.5°	97.7	94.5	89.8	72.8
47.5°	76.1	66.6	63.7	32.9
55°	39.1	41.0	43.8	4.0
65°	29.0	49.1	43.9	4.0
75°	33.8	34.2	40.7	0.0
85°	107.7	47.2	23.7	4.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)