

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: P256750

Luminaire Tested: **CST-10-8-D-U-T5R-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256750
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-10-8-D-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 4000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED
180 DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53675 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U2 - G5

Input Watts (W): 631
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: 28.75 FT

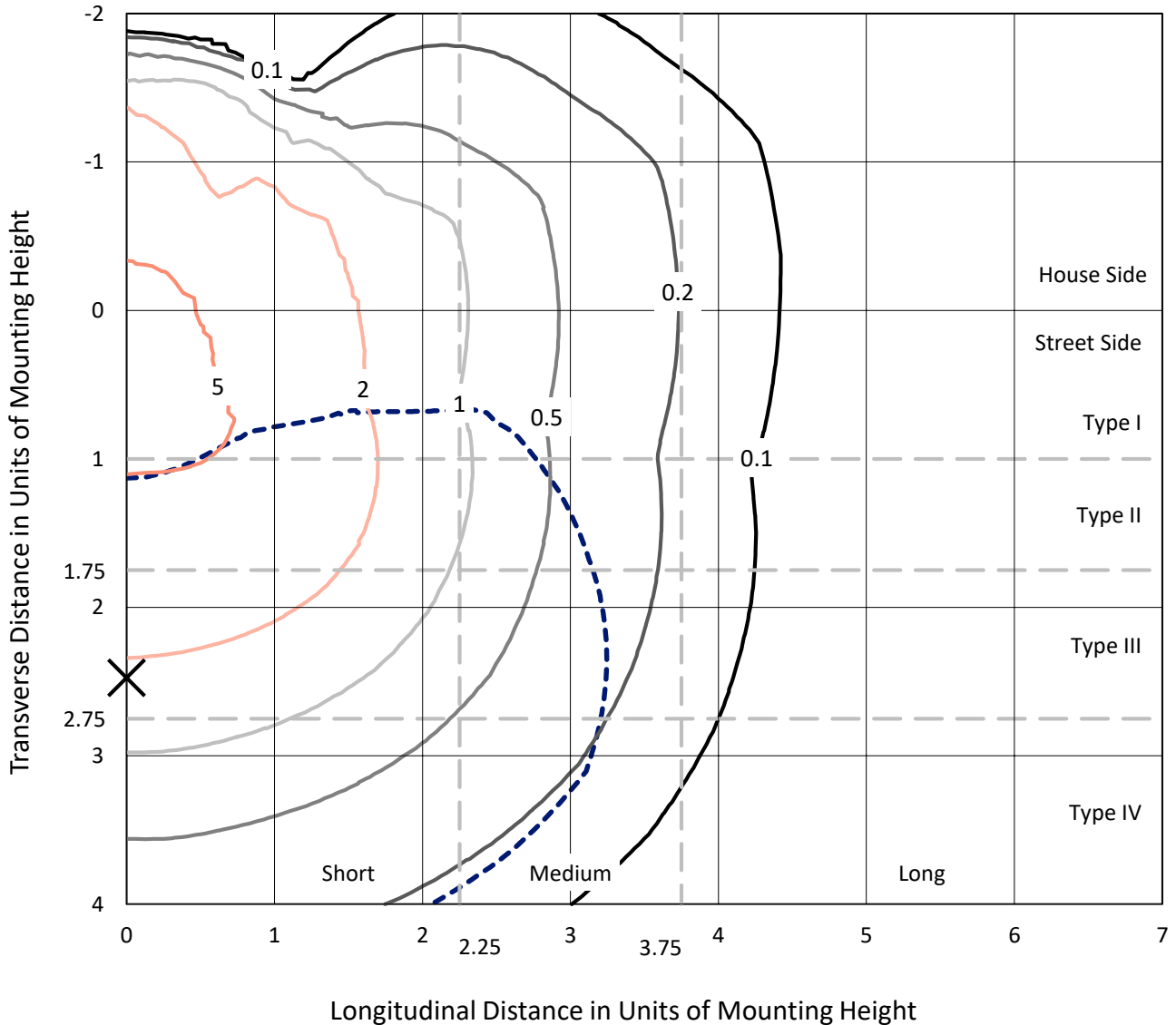


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

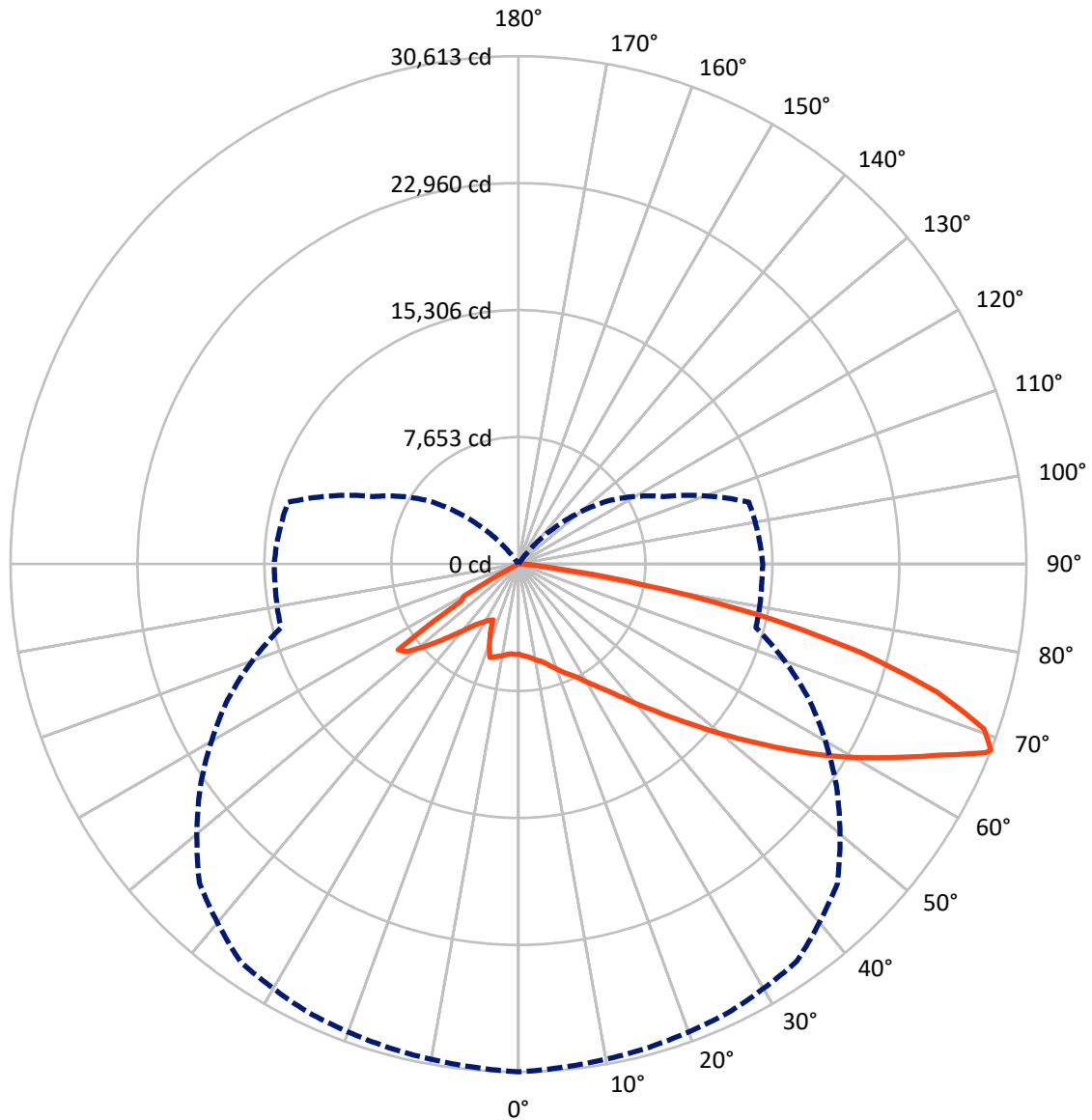


Based on 30 foot mounting height. Maximum calculated value = 6.3 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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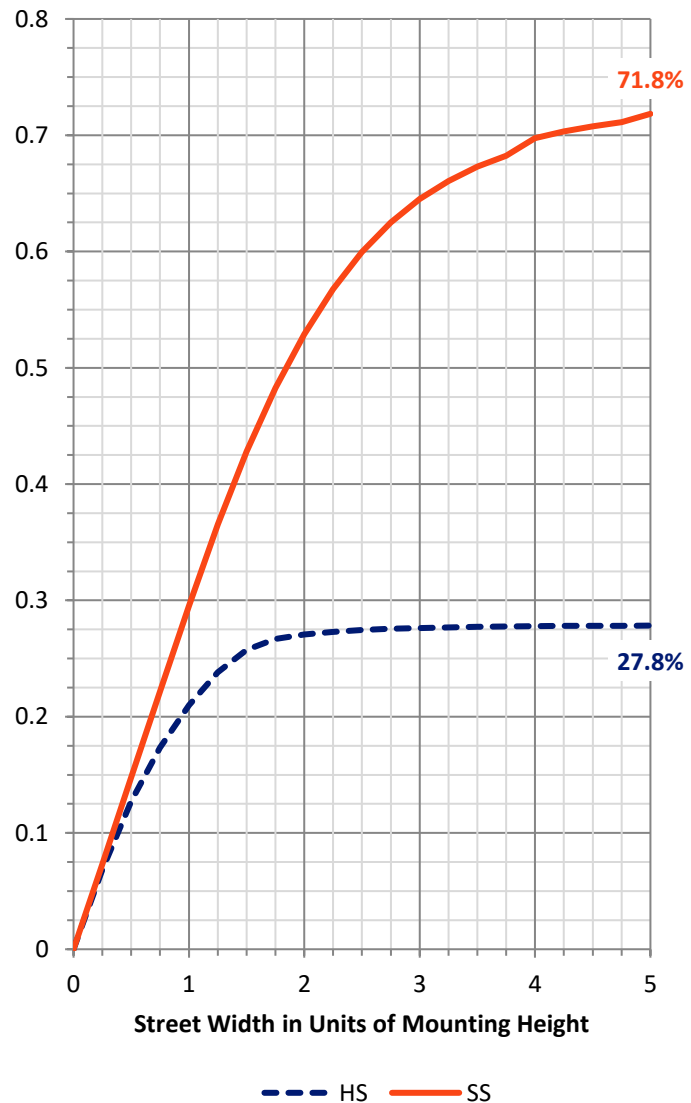
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14991.5	0.3	14991.8
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	38652.4	30.7	38683.2
	% Fixture	72.0	0.1	72.1
Total	Lumens	53643.9	31.1	53675.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	527.8	1.0
10°-20°	1672.4	3.1
20°-30°	2831.3	5.3
30°-40°	4485.4	8.4
40°-50°	7333.4	13.7
50°-60°	11232.9	20.9
60°-70°	13811.7	25.7
70°-80°	10672.2	19.9
80°-90°	1076.8	2.0
90°-100°	30.6	0.1
100°-110°	0.5	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°	53643.9	99.9
0°-180°	53675.0	100.0



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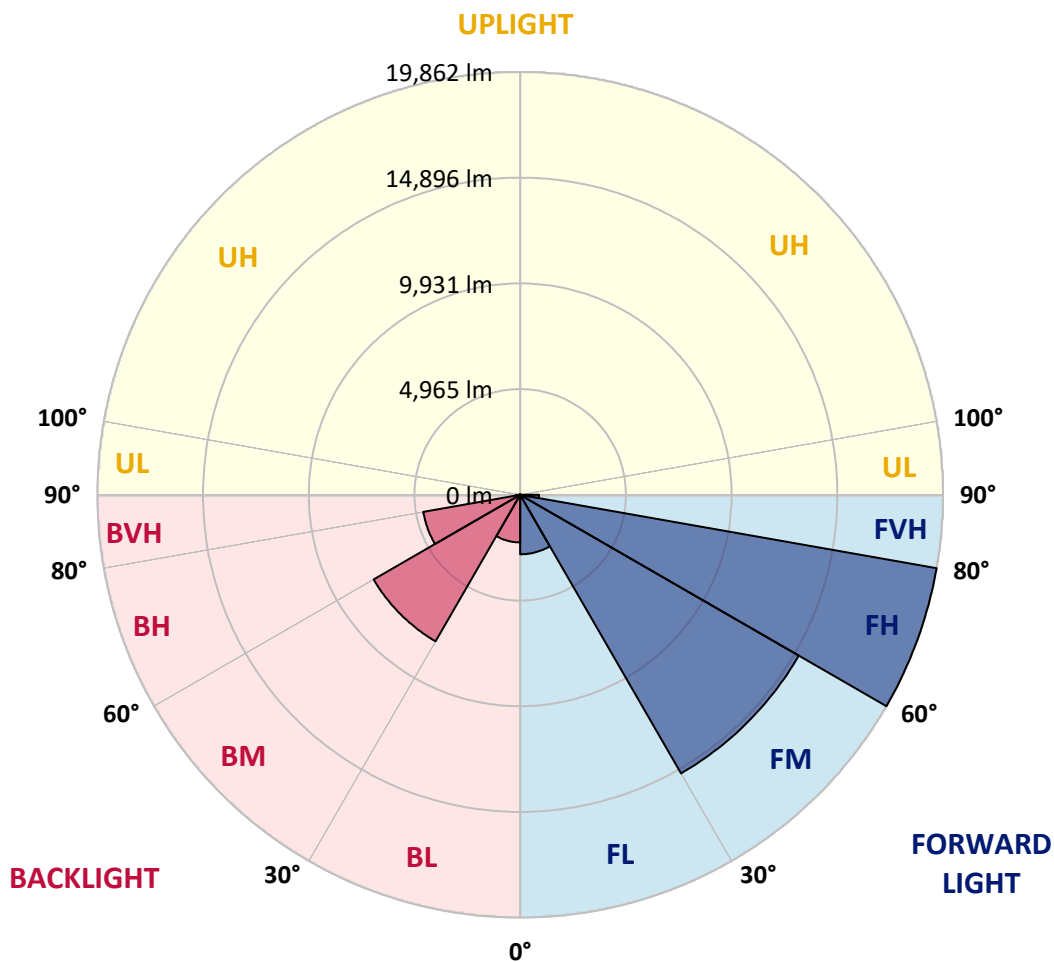
CATALOG NUMBER: CST-10-8-D-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2793.8	5.2			
FM	(30°-60°)	15108.6	28.1			
FH	(60°-80°)	19862.0	37.0			G5
FVH	(80°-90°)	888.0	1.7			G5
BL	(0°-30°)	2237.6	4.2	B3/2500		
BM	(30°-60°)	7943.2	14.8	B4/8500		
BH	(60°-80°)	4621.9	8.6	B4/5000		G4/5000
BVH	(80°-90°)	188.8	0.4			G2/225
UL	(90°-100°)	30.6	0.1		U2/50	
UH	(100°-180°)	0.3	0.0		U1/10	

BUG Rating: B4-U2-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8
2.5°	5536.1	5525.8	5515.4	5538.7	5448.2	5487.0	5455.9	5484.4	5463.7	5487.0	5479.2
5°	5608.5	5598.2	5567.1	5593.0	5533.5	5549.0	5510.3	5520.6	5450.8	5492.2	5489.6
7.5°	5727.5	5699.0	5678.3	5678.3	5626.6	5624.0	5562.0	5564.6	5510.3	5505.1	5515.4
10°	5887.8	5867.1	5810.2	5815.4	5743.0	5732.6	5655.1	5652.5	5608.5	5582.7	5605.9
12.5°	6006.7	6027.4	5975.7	5975.7	5903.3	5851.6	5797.3	5761.1	5727.5	5688.7	5670.6
15°	6223.9	6244.6	6174.8	6172.2	6143.8	6081.7	6022.2	5944.7	5885.2	5867.1	5838.6
17.5°	6505.8	6492.8	6433.4	6436.0	6441.1	6340.3	6280.8	6180.0	6094.6	6032.6	6017.1
20°	6792.8	6792.8	6728.1	6748.8	6723.0	6629.9	6591.1	6451.5	6332.5	6265.3	6211.0
22.5°	7113.4	7100.5	7056.5	7100.5	7048.8	6955.7	6891.0	6751.4	6598.9	6218.7	6063.6
25°	7418.5	7410.8	7428.9	7441.8	7377.2	7260.8	7216.9	7069.5	6645.4	6146.3	5833.5
27.5°	7803.8	7778.0	7819.3	7845.2	7780.5	7679.7	7586.6	7421.1	6523.9	6130.8	6097.2
30°	8297.7	8240.8	8300.3	8313.2	8246.0	8183.9	8044.3	7216.9	6565.2	6451.5	6441.1
32.5°	8825.2	8758.0	8835.5	8845.9	8758.0	8706.2	8354.6	7110.8	6971.2	6839.3	6852.3
35°	9450.9	9450.9	9489.7	9494.9	9430.3	9342.3	8002.9	7628.0	7503.9	7382.3	7379.8
37.5°	10213.7	10190.5	10293.9	10356.0	10286.1	10035.3	8514.9	8339.1	8147.7	7992.6	7671.9
40°	11134.3	11175.6	11204.1	11266.1	11198.9	10635.2	9262.2	9063.1	8913.1	8393.4	7584.0
42.5°	12127.2	12137.5	12199.6	12277.2	12277.2	11682.5	10136.2	9965.5	9771.6	8207.2	7842.6
45°	13314.1	13290.8	13409.7	13533.9	13500.2	12884.8	11152.4	11025.7	10118.1	8747.6	8750.2
47.5°	14661.2	14632.8	14803.5	14966.4	14798.3	14219.1	12269.4	12171.2	9766.4	9663.0	9642.3
50°	16217.9	16148.1	16344.6	16561.8	16424.7	15708.5	13626.9	11739.3	10746.4	10663.7	10650.7
52.5°	17880.5	17826.2	17945.2	18314.9	18133.9	17267.7	14912.1	12111.7	11881.6	11788.5	11765.2
55°	19757.8	19651.8	19907.8	20189.6	19980.2	18992.4	16179.1	13347.7	13109.8	12949.5	12716.8
57.5°	21730.7	21578.2	21710.0	22064.3	21862.6	20758.5	17813.3	14619.9	14338.0	11866.0	10922.2
60°	23695.9	23626.1	23677.8	23990.7	23742.4	22475.4	19344.1	15894.7	12135.0	11736.8	11783.3
62.5°	25671.4	25518.8	25565.4	25886.0	25568.0	24109.6	20794.7	17053.1	12771.1	12631.4	12680.6
65°	27789.1	27608.1	27649.5	27742.6	27349.6	25575.7	22077.2	18146.9	13727.8	13580.4	13634.7
67.5°	30341.3	30175.8	29950.8	29674.2	29131.2	27132.4	23352.0	19297.5	14803.5	14720.7	14738.8
68°	30612.8	30452.5	30181.0	29852.6	29242.3	27197.0	23406.3	19331.1	14819.0	14715.6	14720.7
70°	29767.2	29862.9	29555.2	29004.5	28495.1	26250.6	22519.4	18586.4	14159.6	14007.1	13968.3
72.5°	26361.8	26571.3	26147.2	26054.1	25428.3	23385.6	19706.1	16127.4	12316.0	12365.1	12225.5
75°	21283.4	21591.1	21076.5	21105.0	20748.1	19507.0	16515.2	13427.8	10112.9	10337.9	10379.2
77.5°	14800.9	15243.0	15018.1	15243.0	15067.2	14619.9	12781.4	10340.4	7715.9	7974.5	8075.3
80°	7718.5	8243.4	8540.8	8633.8	8690.7	8672.6	7783.1	6205.8	4460.4	4556.1	4550.9
82.5°	2441.0	2314.3	2389.2	2368.6	2303.9	2329.8	2099.6	1642.0	1137.7	1254.1	1199.8
85°	736.9	742.1	721.4	716.3	662.0	581.8	475.8	274.1	134.5	157.7	147.4
87.5°	543.0	548.2	506.8	481.0	449.9	390.4	302.5	170.7	64.6	62.1	49.1
90°	299.9	289.6	268.9	248.2	235.3	201.7	152.6	64.6	23.3	18.1	15.5
92.5°	162.9	155.1	144.8	137.0	118.9	95.7	62.1	20.7	10.3	2.6	0.0
95°	75.0	69.8	67.2	59.5	51.7	36.2	20.7	12.9	7.8	2.6	0.0
97.5°	33.6	31.0	28.4	23.3	18.1	10.3	10.3	7.8	5.2	2.6	0.0
100°	7.8	7.8	5.2	5.2	5.2	5.2	5.2	5.2	5.2	2.6	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8	5437.8
2.5°	5471.5	5455.9	5448.2	5399.1	5414.6	5370.6	5455.9	5435.3	5422.3	5458.5
5°	5476.6	5422.3	5455.9	5427.5	5437.8	5375.8	5443.0	5414.6	5412.0	5427.5
7.5°	5489.6	5453.4	5487.0	5430.1	5455.9	5430.1	5479.2	5450.8	5474.1	5489.6
10°	5559.4	5538.7	5523.2	5510.3	5528.4	5476.6	5538.7	5541.3	5549.0	5595.6
12.5°	5657.6	5637.0	5611.1	5577.5	5595.6	5574.9	5621.4	5634.4	5662.8	5686.1
15°	5794.7	5755.9	5745.6	5714.5	5732.6	5722.3	5732.6	5724.9	5779.2	5771.4
17.5°	5983.4	5939.5	5792.1	5642.1	5546.5	5574.9	5693.8	5849.0	5887.8	5892.9
20°	6053.3	5743.0	5727.5	5556.8	5479.2	5474.1	5228.4	4861.2	4972.4	5233.6
22.5°	5970.5	5546.5	5502.5	5468.9	5137.9	4594.9	4543.2	4488.9	4475.9	4514.7
25°	5784.3	5735.2	5696.4	5256.8	4734.5	4737.1	4662.1	4305.3	3749.3	3702.8
27.5°	6068.8	6001.5	5626.6	4949.1	4938.8	4933.6	4822.4	3907.1	3788.1	3816.6
30°	6392.0	6280.8	5300.8	5212.9	5210.3	5163.8	4323.4	3940.7	3940.7	3945.9
32.5°	6764.3	6073.9	5487.0	5528.4	5525.8	5306.0	4176.0	4150.1	4139.8	4165.7
35°	7048.8	5908.5	5887.8	5962.8	5911.0	4501.8	4437.2	4413.9	4403.5	4390.6
37.5°	6960.9	6384.2	6384.2	6430.8	6014.5	4794.0	4763.0	4763.0	4742.3	4731.9
40°	7095.3	6976.4	6916.9	6935.0	4369.9	5148.2	5171.5	5166.3	5163.8	5181.9
42.5°	7803.8	7697.8	7643.5	7002.2	4892.3	5117.2	5686.1	5683.5	5691.3	5683.5
45°	8706.2	8608.0	8465.8	6552.3	5554.2	4486.3	6267.9	6296.3	6298.9	6296.3
47.5°	9652.6	9590.6	8134.8	7253.1	6273.0	4814.7	5991.2	6997.1	6984.1	6999.6
50°	10653.3	10374.1	8093.4	8083.1	7038.4	5357.7	5360.3	7609.9	7741.8	7783.1
52.5°	11767.8	9404.4	8970.0	8183.9	7814.2	5916.2	5859.3	6743.7	8543.3	8584.7
55°	10930.0	9934.5	9926.7	7284.1	8129.6	6454.1	6461.8	6399.8	7834.8	8905.4
57.5°	10875.7	10899.0	10880.9	8127.0	5931.7	6050.7	7041.0	6986.7	5073.3	4111.4
60°	11814.3	11847.9	10570.6	8776.1	6412.7	3720.9	4336.3	3684.7	3733.8	3772.6
62.5°	12711.6	12721.9	8597.6	5753.3	3177.9	150.0	72.4	59.5	56.9	56.9
65°	13704.5	13704.5	9215.6	6275.6	3069.3	56.9	10.3	7.8	28.4	28.4
67.5°	14663.8	14451.8	9668.2	6663.5	3123.6	7.8	0.0	0.0	0.0	0.0
68°	14609.5	14376.8	9626.8	6653.2	3115.8	5.2	0.0	0.0	0.0	0.0
70°	13797.6	13572.6	9132.9	6350.6	2999.5	5.2	0.0	0.0	0.0	0.0
72.5°	12178.9	11972.1	8088.3	5598.2	2704.7	2.6	0.0	0.0	0.0	0.0
75°	10309.4	10281.0	6986.7	4724.2	2319.4	2.6	0.0	0.0	0.0	0.0
77.5°	8295.1	8165.8	5461.1	3702.8	1869.5	0.0	0.0	0.0	0.0	0.0
80°	4620.8	4812.1	3196.0	2177.2	1176.5	0.0	0.0	0.0	0.0	0.0
82.5°	1248.9	1168.8	698.2	473.2	225.0	0.0	0.0	0.0	0.0	0.0
85°	160.3	175.8	80.2	64.6	15.5	0.0	0.0	0.0	0.0	0.0
87.5°	82.7	98.3	25.9	20.7	5.2	0.0	0.0	0.0	0.0	0.0
90°	15.5	18.1	7.8	2.6	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P256750

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)