

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: 769013_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-3F-SG-XX-HS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769013_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GSM-XX-320-MP-XX-3F-SG-XX-HS
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-TYPE III
DISTRIBUTION
WITH HOUSE-SIDE SHIELD
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 21421.2 lumens
Efficiency: 71.4%
Efficacy: 61.2 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Medium - Cutoff
BUG Rating: B3 - U1 - G3

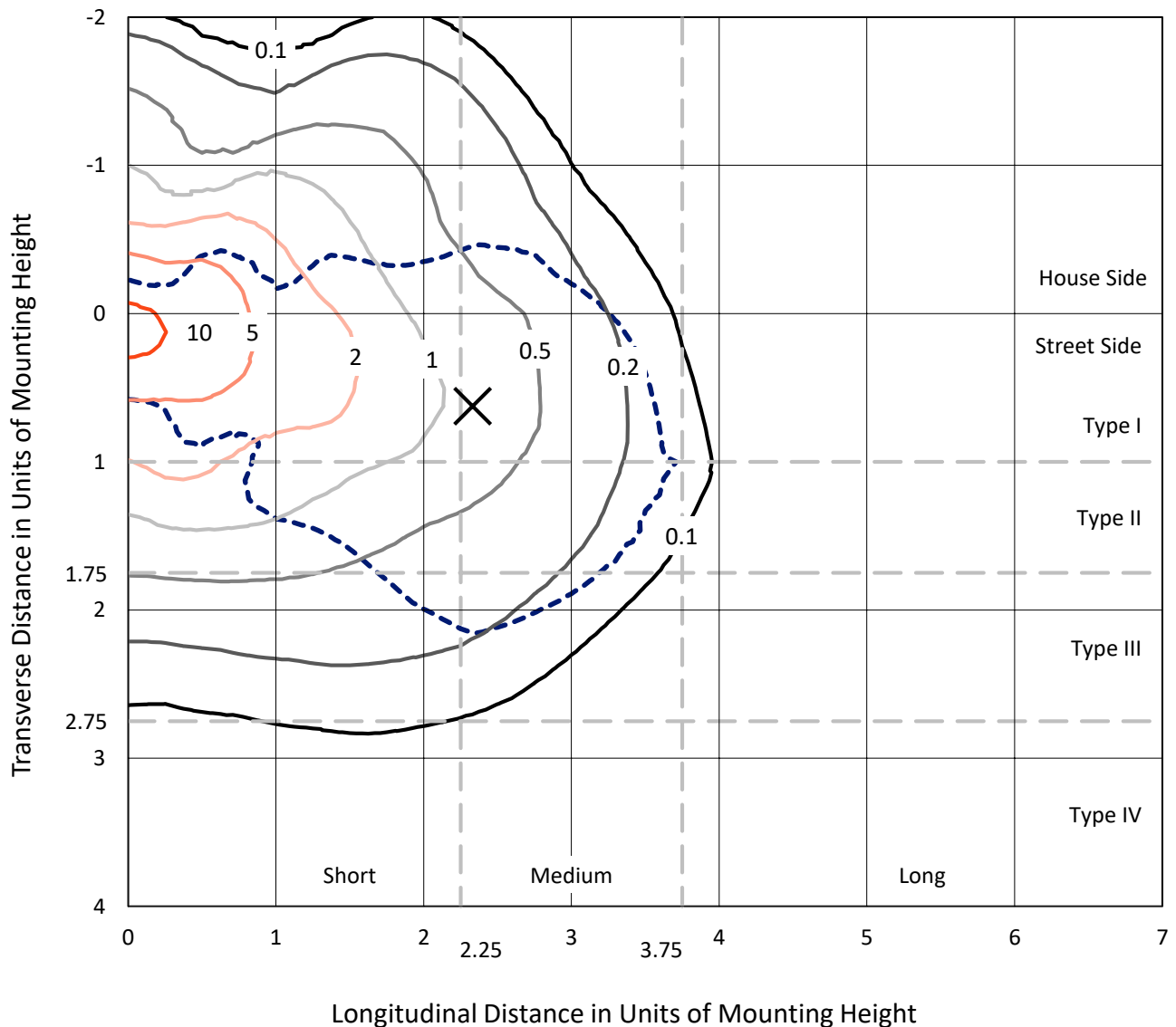
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

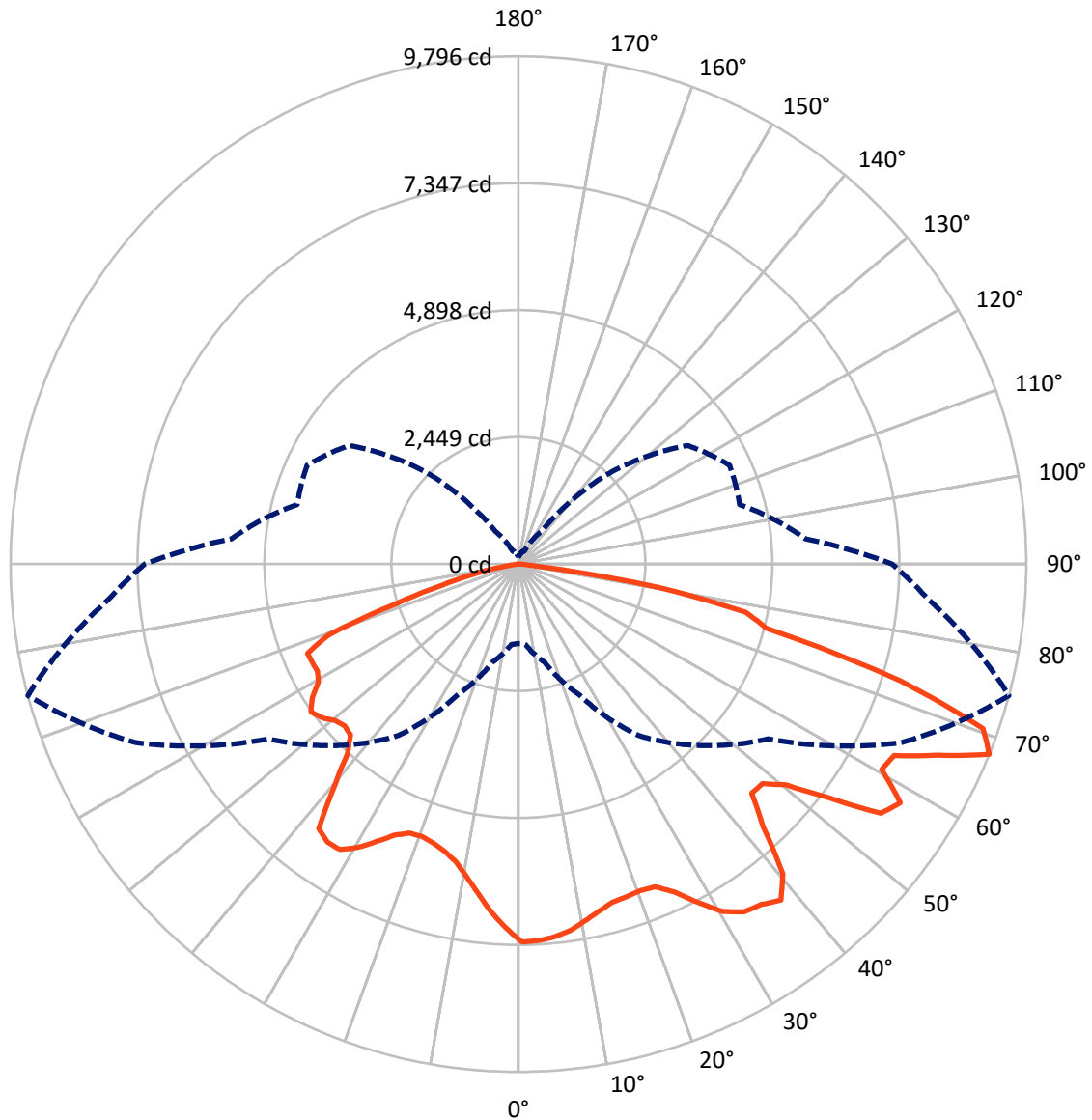
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.7 fc
 Type III - Medium - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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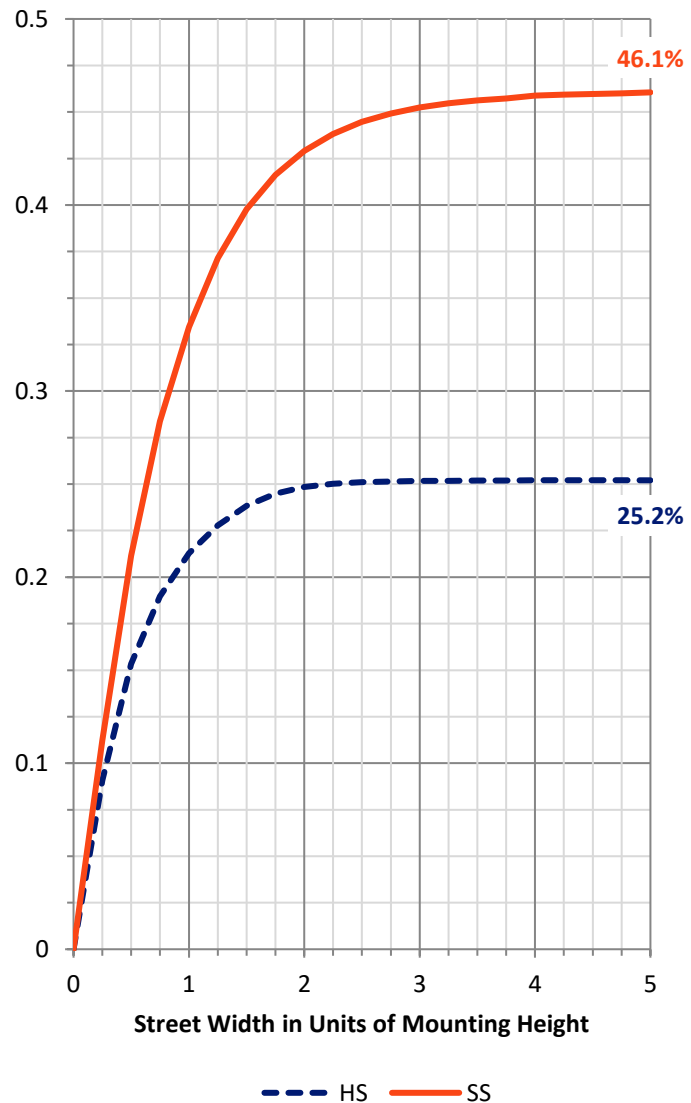
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7607.5	0.0	7607.5
	% Lamp	25.4	0.0	25.4
Street Side	Lumens	13804.3	9.4	13813.7
	% Lamp	46.0	0.0	46.0
Total	Lumens	21411.8	9.4	21421.2
	% Lamp	71.4	0.0	71.4

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	654.1	3.1	2.2
10°-20°	1716.1	8.0	5.7
20°-30°	2535.6	11.8	8.5
30°-40°	3238.1	15.1	10.8
40°-50°	3292.2	15.4	11.0
50°-60°	3846.1	18.0	12.8
60°-70°	3871.8	18.1	12.9
70°-80°	2114.7	9.9	7.0
80°-90°	143.1	0.7	0.5
90°-100°	8.6	0.0	0.0
100°-110°	1.6	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	21411.8	100.0	71.4
0°-180°	21421.2	100.0	71.4



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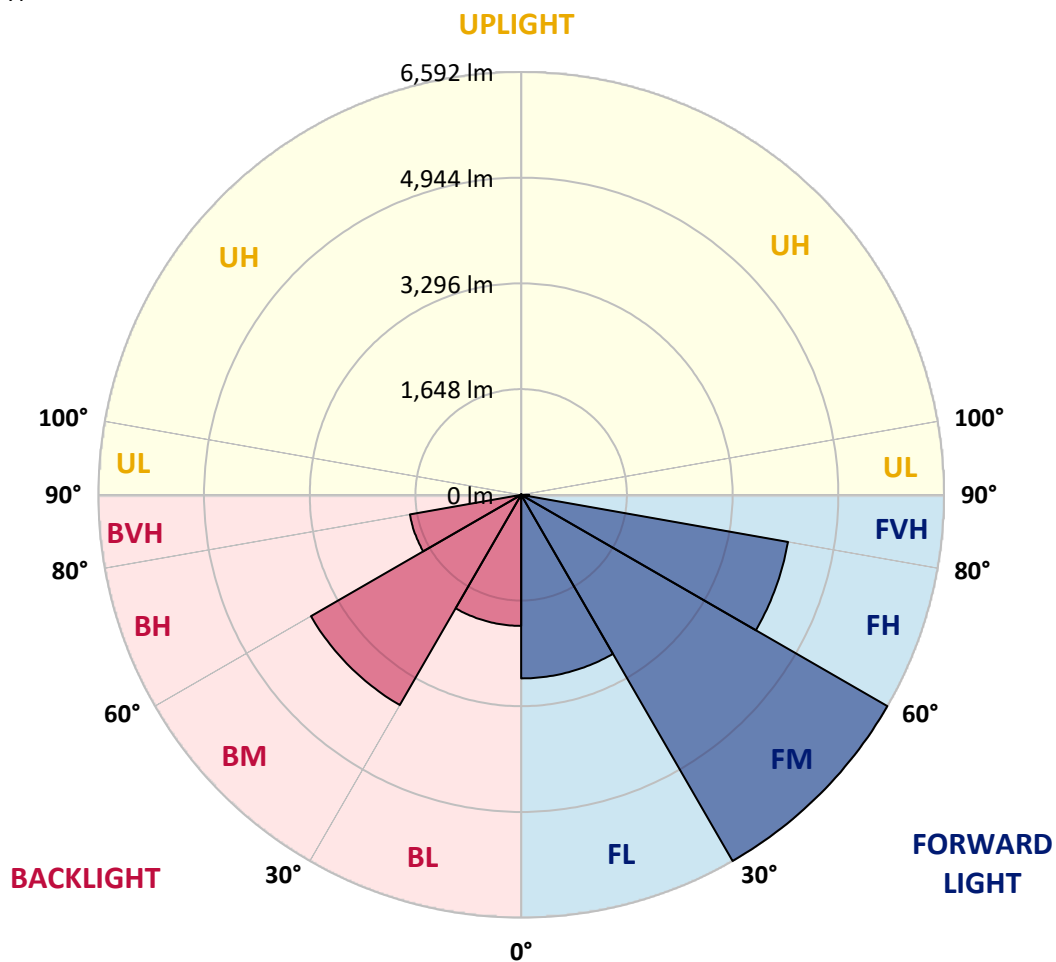
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2862.3	9.5			
FM (30°-60°)	6592.1	22.0			
FH (60°-80°)	4224.2	14.1			G2/5000
FVH (80°-90°)	125.6	0.4			G2/225
BL (0°-30°)	2043.4	6.8	B3/2500		
BM (30°-60°)	3784.3	12.6	B3/5000		
BH (60°-80°)	1762.3	5.9	B3/2500		G3/2500
BVH (80°-90°)	17.5	0.1			G1/100
UL (90°-100°)	8.6	0.0		U1/10	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	8578.8	28.6			

BUG Rating: B3-U1-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3
2.5°	7737.5	7742.5	7710.0	7645.8	7590.8	7535.8	7453.3	7357.5	7275.0	7201.7	7141.7
5°	8058.3	8049.2	8008.3	7884.2	7760.8	7641.7	7499.2	7361.7	7224.2	7077.5	6976.7
7.5°	8140.8	8136.7	8063.3	7907.5	7792.5	7678.3	7526.7	7343.3	7141.7	6916.7	6775.0
10°	8040.0	8030.8	7957.5	7825.0	7728.3	7627.5	7504.2	7275.0	7004.2	6779.2	6605.0
12.5°	7737.5	7728.3	7682.5	7614.2	7586.7	7517.5	7352.5	7128.3	6875.8	6586.7	6390.0
15°	7334.2	7330.0	7334.2	7343.3	7361.7	7330.0	7210.8	7035.8	6770.0	6476.7	6284.2
17.5°	6912.5	6912.5	7008.3	7045.8	7068.3	7082.5	7110.0	6985.8	6747.5	6449.2	6256.7
20°	6490.8	6509.2	6614.2	6674.2	6751.7	6880.0	6953.3	6921.7	6724.2	6408.3	6201.7
22.5°	6050.8	6069.2	6215.8	6316.7	6449.2	6665.0	6861.7	6925.8	6760.8	6449.2	6234.2
25°	5620.0	5647.5	5789.2	5931.7	6192.5	6555.0	6898.3	7095.8	7008.3	6715.0	6472.5
27.5°	5216.7	5211.7	5395.0	5601.7	5995.8	6559.2	7040.8	7403.3	7398.3	7059.2	6784.2
30°	4831.7	4840.8	5055.8	5330.8	5890.0	6610.0	7302.5	7742.5	7779.2	7380.0	7105.0
32.5°	4492.5	4505.8	4795.0	5120.0	5890.0	6729.2	7458.3	7930.0	7999.2	7595.8	7306.7
35°	4171.7	4208.3	4551.7	4996.7	5844.2	6760.8	7421.7	7935.0	8067.5	7673.3	7375.8
37.5°	3915.0	3983.3	4474.2	4950.8	5816.7	6660.0	7288.3	7935.0	8223.3	7691.7	7343.3
40°	3695.0	3800.0	4460.0	4936.7	5601.7	6375.8	7160.0	7889.2	7856.7	6995.0	6555.0
42.5°	3548.3	3699.2	4496.7	4923.3	5312.5	5972.5	6747.5	7320.8	6921.7	6124.2	5739.2
45°	3446.7	3621.7	4584.2	4859.2	4927.5	5381.7	6055.0	6472.5	6307.5	5752.5	5376.7
47.5°	3355.0	3585.0	4602.5	4804.2	4575.0	4845.0	5505.0	6155.8	6330.0	5780.0	5372.5
50°	3235.8	3442.5	4542.5	4780.8	4542.5	4740.0	5409.2	6385.0	6692.5	6133.3	5642.5
52.5°	3015.8	3290.8	4423.3	4639.2	4740.0	4950.8	5702.5	7068.3	7480.8	6793.3	6119.2
55°	2878.3	3085.0	3924.2	4469.2	4923.3	5225.8	6215.8	8095.0	8485.0	7531.7	6632.5
57.5°	2786.7	2905.8	3506.7	4235.8	4991.7	5400.0	6449.2	8599.2	8686.7	7425.8	6463.3
60°	2667.5	2718.3	3149.2	3896.7	4790.0	5285.0	6243.3	8228.3	8049.2	6861.7	6115.0
62.5°	2383.3	2410.8	2832.5	3530.0	4455.8	5129.2	5968.3	8127.5	8131.7	6885.0	6110.0
65°	1870.0	1879.2	2355.8	3144.2	4175.8	4996.7	5858.3	8379.2	8897.5	7220.0	6403.3
67.5°	1530.8	1558.3	1966.7	2786.7	4038.3	4950.8	5880.8	8150.0	9795.8	7944.2	7205.8
70°	1356.7	1334.2	1695.8	2452.5	3731.7	4900.0	6060.0	7948.3	9506.7	8063.3	7315.8
72.5°	1035.8	995.0	1325.0	2071.7	3204.2	4620.8	5798.3	7480.8	7715.0	6215.8	5184.2
75°	742.5	729.2	903.3	1572.5	2278.3	3300.0	4034.2	4790.0	4936.7	3882.5	3327.5
77.5°	568.3	540.8	454.2	527.5	870.8	1691.7	2585.0	3836.7	4478.3	3098.3	2608.3
80°	357.5	325.8	261.7	284.2	472.5	999.2	1554.2	2489.2	2764.2	1737.5	1416.7
82.5°	247.5	234.2	183.3	155.8	146.7	179.2	215.8	275.0	344.2	192.5	151.7
85°	210.8	201.7	151.7	105.8	64.2	27.5	5.0	5.0	0.0	0.0	0.0
87.5°	137.5	128.3	87.5	45.8	23.3	5.0	0.0	0.0	0.0	0.0	0.0
90°	146.7	137.5	91.7	50.8	14.2	0.0	0.0	0.0	0.0	0.0	0.0
95°	64.2	60.0	32.5	14.2	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	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
125°	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
145°	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
165°	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):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	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°	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3	7288.3
2.5°	7100.8	7017.5	6976.7	6930.8	6880.0	6843.3	6811.7	6793.3	6788.3	6784.2
5°	6889.2	6729.2	6600.8	6481.7	6362.5	6284.2	6210.8	6160.8	6142.5	6133.3
7.5°	6650.8	6394.2	6142.5	5950.0	5789.2	5702.5	5647.5	5596.7	5555.8	5546.7
10°	6445.0	6100.8	5830.8	5574.2	5354.2	5193.3	5143.3	5110.8	5106.7	5106.7
12.5°	6225.0	5858.3	5546.7	5271.7	5005.8	4835.8	4758.3	4822.5	4859.2	4877.5
15°	6105.8	5715.8	5363.3	5015.0	4730.8	4538.3	4465.0	4515.0	4593.3	4593.3
17.5°	6050.8	5624.2	5280.8	4868.3	4538.3	4313.3	4263.3	4290.8	4359.2	4373.3
20°	6000.0	5574.2	5207.5	4771.7	4450.8	4153.3	4075.0	4175.8	4240.0	4272.5
22.5°	6023.3	5596.7	5170.8	4744.2	4414.2	4020.0	3759.2	3860.0	3951.7	3970.0
25°	6220.0	5743.3	5299.2	4877.5	4400.8	3860.0	3327.5	3231.7	3446.7	3474.2
27.5°	6504.2	6000.0	5519.2	5024.2	4318.3	3621.7	2878.3	2612.5	2869.2	2933.3
30°	6779.2	6280.0	5761.7	5180.0	4175.8	3332.5	2434.2	2099.2	2264.2	2328.3
32.5°	6995.0	6495.0	5968.3	5239.2	4038.3	3057.5	2062.5	1723.3	1787.5	1824.2
35°	7068.3	6504.2	5867.5	5060.8	3786.7	2782.5	1765.0	1503.3	1622.5	1631.7
37.5°	7008.3	6394.2	5706.7	4850.0	3589.2	2530.0	1567.5	1453.3	1613.3	1585.8
40°	6183.3	5601.7	5015.0	4235.8	3391.7	2269.2	1439.2	1444.2	1714.2	1705.0
42.5°	5422.5	4923.3	4496.7	3836.7	3254.2	2007.5	1389.2	1407.5	1805.8	1842.5
45°	5055.8	4620.8	4304.2	3790.8	3199.2	1750.8	1224.2	1292.5	1719.2	1778.3
47.5°	5042.5	4579.2	4276.7	3836.7	3204.2	1545.0	1095.8	1215.0	1462.5	1393.3
50°	5230.0	4648.3	4276.7	3850.8	3176.7	1457.5	1132.5	1242.5	1279.2	1320.0
52.5°	5523.3	4813.3	4368.3	3832.5	3066.7	1393.3	1224.2	1398.3	1581.7	1650.0
55°	5853.3	4914.2	4382.5	3790.8	2933.3	1338.3	1224.2	1485.0	1805.8	1915.8
57.5°	5706.7	4740.0	4290.8	3790.8	2828.3	1260.8	1127.5	1375.0	1732.5	1860.8
60°	5385.8	4474.2	4144.2	3836.7	2750.0	1145.8	953.3	1059.2	1475.8	1613.3
62.5°	5271.7	4391.7	4249.2	3988.3	2722.5	1008.3	696.7	674.2	1022.5	1127.5
65°	5321.7	4405.0	4460.0	4089.2	2713.3	907.5	485.8	394.2	454.2	522.5
67.5°	5560.0	4419.2	4496.7	3983.3	2475.0	760.8	289.2	225.0	170.0	137.5
70°	5482.5	3910.0	3589.2	3020.8	1980.0	555.0	133.3	100.8	41.7	9.2
72.5°	3974.2	2493.3	1860.8	1407.5	1090.8	298.3	78.3	50.8	0.0	0.0
75°	2672.5	1526.7	1017.5	683.3	449.2	119.2	64.2	36.7	0.0	0.0
77.5°	2035.0	944.2	564.2	330.0	160.8	27.5	18.3	9.2	0.0	0.0
80°	1040.8	426.7	225.0	110.0	36.7	0.0	0.0	0.0	0.0	0.0
82.5°	115.0	55.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
95°	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
115°	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
135°	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
155°	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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	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)