

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: INVUE

Report Number:

Luminaire Tested: **ENT-SA1B-740-U-SL2-HSS-ULG**

Issue Date: 3/30/2022

**Test Information**

Test Method: LM-79-08  
Report Number: REPORT IS A COMBINATION OF REPORTS P401126 AND P226775  
Test Lab: INNOVATION CENTER  
Issue Date: 3/30/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1B-740-U-SL2-HSS-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

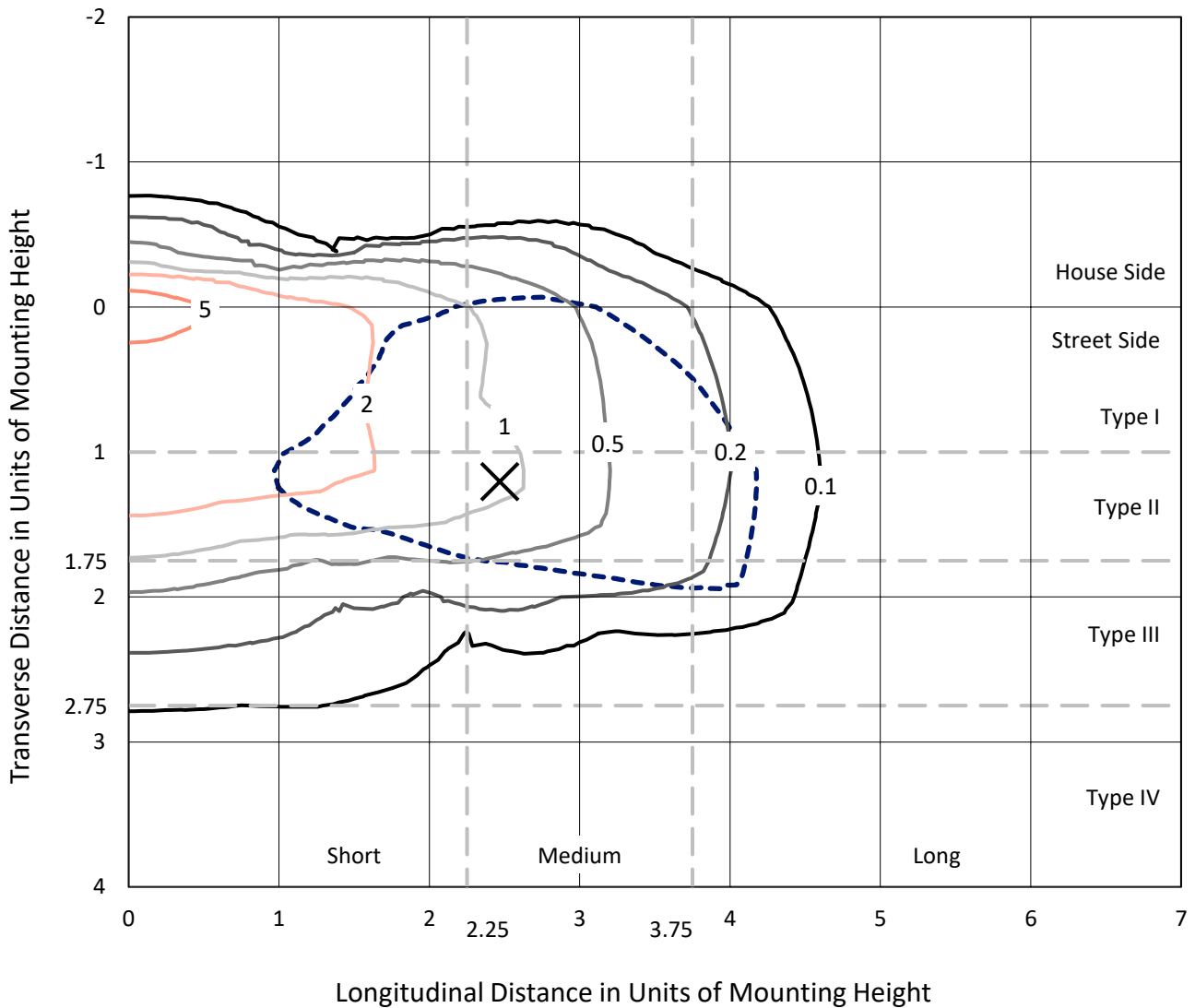
Lumens per Lamp: N/A  
Luminaire Lumens: 4544.9 lumens  
Efficiency: N/A  
Efficacy: 108.0 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U5 - G1  
  
Input Watts (W): 42.1  
Input Voltage (V): NR  
Input Current (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: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

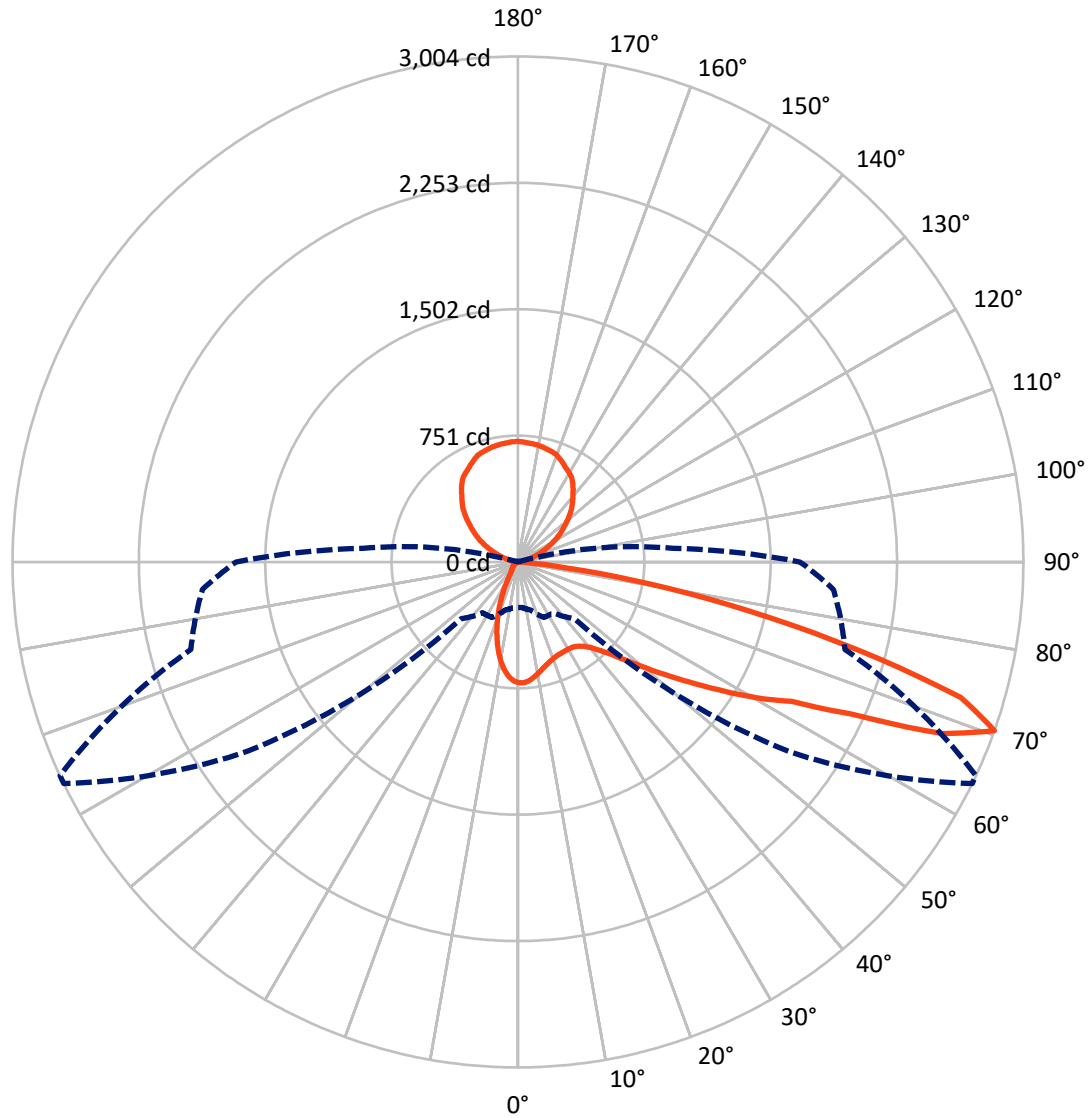
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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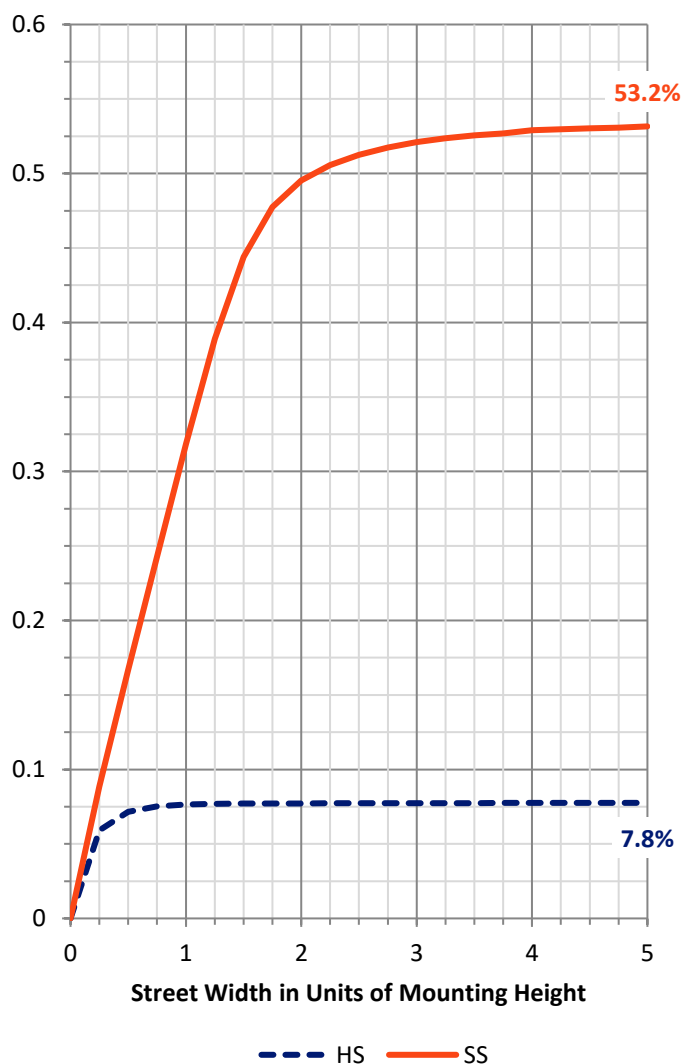
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	356.0	887.0	1242.9
	% Fixture	7.8	19.5	27.3
<b>Street Side</b>	Lumens	2415.0	887.0	3302.0
	% Fixture	53.1	19.5	72.7
<b>Total</b>	Lumens	2771.0	1773.9	4544.9
	% Fixture	61.0	39.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.4	1.3
10°-20°	134.1	3.0
20°-30°	184.7	4.1
30°-40°	254.4	5.6
40°-50°	379.1	8.3
50°-60°	598.9	13.2
60°-70°	678.7	14.9
70°-80°	445.6	9.8
80°-90°	34.9	0.8
90°-100°	8.4	0.2
100°-110°	58.7	1.3
110°-120°	169.9	3.7
120°-130°	279.4	6.1
130°-140°	344.6	7.6
140°-150°	352.5	7.8
150°-160°	297.0	6.5
160°-170°	195.5	4.3
170°-180°	67.8	1.5
0°-90°	2771.0	61.0
0°-180°	4544.9	100.0

**Coefficient of Utilization**



REPORT NUMBER:

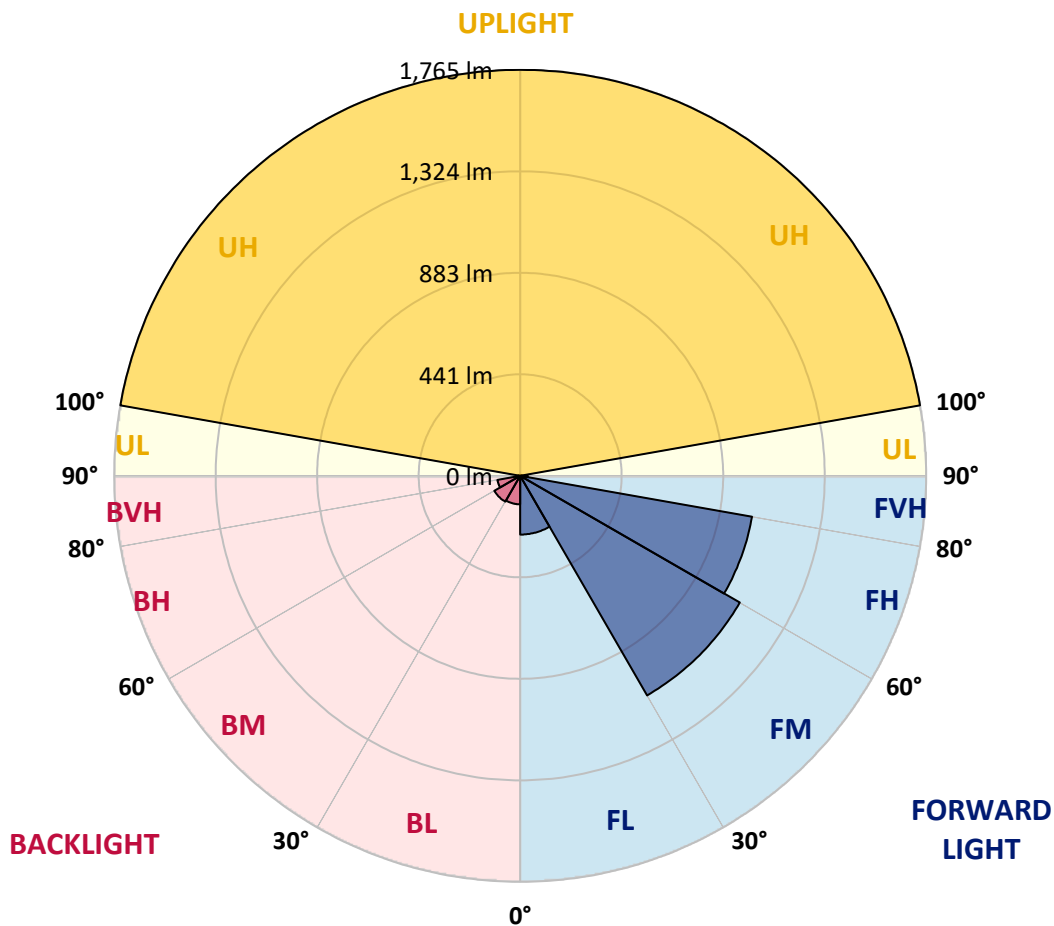
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	255.4	5.6			
FM (30°-60°)	1102.8	24.3			
FH (60°-80°)	1023.8	22.5			G1/1800
FVH (80°-90°)	33.0	0.7			G1/100
BL (0°-30°)	123.9	2.7	B1/500		
BM (30°-60°)	129.6	2.9	B0/220		
BH (60°-80°)	100.5	2.2	B0/110		G0/110
BVH (80°-90°)	1.9	0.0			G0/10
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	38.8		U5	

**BUG Rating: B1-U5-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3
2.5°	697.3	697.3	700.7	704.2	706.1	711.5	715.4	718.3	718.3	720.2	716.8
5°	651.0	651.0	654.0	662.2	671.0	682.2	694.9	707.6	710.0	719.3	718.8
7.5°	608.2	612.1	616.9	625.2	634.5	651.0	668.6	690.5	692.9	715.4	720.2
10°	578.4	580.9	583.8	593.0	606.7	625.7	644.7	670.5	674.9	708.5	720.2
12.5°	554.5	555.0	559.4	569.7	582.8	601.3	622.8	651.0	656.4	696.4	718.3
15°	537.5	537.0	541.9	551.6	564.3	583.3	604.3	634.0	639.8	686.1	717.8
17.5°	527.3	527.7	531.6	539.0	551.1	569.2	590.6	619.8	625.7	677.8	720.2
20°	527.3	527.3	529.7	533.1	542.4	558.4	579.4	609.6	615.5	672.5	723.6
22.5°	537.5	536.5	538.5	535.5	539.9	551.1	572.6	602.8	609.1	670.0	729.0
25°	556.0	554.1	555.5	549.2	544.3	549.2	568.2	599.9	606.7	670.5	733.9
27.5°	581.8	581.8	578.9	570.1	558.0	552.6	567.7	597.9	604.7	670.5	737.3
30°	617.9	616.4	612.1	603.3	584.3	566.2	572.6	597.9	604.7	671.0	738.3
32.5°	654.0	654.9	657.4	648.6	622.8	589.6	584.3	602.3	608.2	670.5	736.8
35°	690.5	691.0	701.7	702.7	669.6	627.2	604.3	614.0	617.9	675.4	737.8
37.5°	722.7	725.1	746.1	756.3	729.0	675.4	635.9	635.9	637.9	688.6	743.6
40°	758.7	765.1	790.4	813.3	802.6	737.3	682.2	668.1	669.1	712.4	756.8
42.5°	800.6	808.4	841.6	874.7	874.2	813.3	740.7	719.3	720.2	753.9	783.6
45°	853.8	859.1	901.0	942.4	951.2	897.1	814.3	786.0	787.0	816.7	835.7
47.5°	918.6	924.9	965.3	1015.0	1037.5	998.0	909.8	879.1	876.2	897.1	910.8
50°	1003.4	1015.5	1039.4	1087.2	1141.3	1114.9	1021.9	991.2	987.3	1003.8	1008.2
52.5°	1084.2	1095.5	1105.2	1149.1	1253.8	1260.2	1159.3	1125.7	1121.8	1125.7	1131.0
55°	1096.4	1102.8	1110.1	1169.5	1345.0	1444.8	1315.7	1275.8	1264.5	1257.2	1275.3
57.5°	999.5	995.6	1019.9	1100.8	1360.1	1649.0	1527.2	1449.7	1439.0	1398.6	1380.5
60°	791.4	786.0	808.9	919.5	1275.3	1750.4	1820.6	1642.2	1615.9	1480.4	1462.9
62.5°	556.0	549.7	579.4	644.7	989.2	1730.4	2151.4	1824.5	1772.3	1553.0	1529.2
65°	428.3	425.4	441.5	456.1	603.8	1498.9	2333.7	2180.2	2072.5	1632.0	1601.3
67.5°	335.8	339.6	359.6	402.0	389.8	934.2	2316.6	2723.0	2615.3	1777.2	1757.7
70°	270.0	270.9	295.8	363.5	367.9	475.6	1961.4	3003.7	3002.3	2011.6	1882.0
72.5°	163.2	167.6	208.1	314.3	371.3	364.0	1318.6	2752.3	2790.3	2066.2	1697.3
75°	78.5	82.8	107.7	211.0	368.9	354.3	713.4	2083.7	2132.4	1852.7	1376.1
77.5°	29.2	33.1	49.7	103.3	273.4	324.5	375.2	1404.9	1443.4	1356.2	932.2
80°	9.3	10.7	19.5	47.3	138.9	268.0	241.7	792.4	818.2	593.5	313.3
82.5°	1.0	1.5	5.4	16.1	53.6	136.4	141.8	298.2	311.4	116.0	63.3
85°	0.0	0.0	0.0	0.0	1.0	1.0	35.1	57.0	46.8	11.2	18.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.5	1.5	1.5	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.1	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.4	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.9	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.4	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.3	96.2	92.1	89.0
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.7	123.8	121.7	118.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	185.9	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.1	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.8	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	457.8	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	544.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.3	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	597.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.5	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	627.8	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.0	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.5	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	678.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.1	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.5	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.6	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	710.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	714.5	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3	717.3
2.5°	716.3	716.3	712.9	707.6	700.7	691.0	688.6	680.8	680.8	674.4	673.5
5°	717.3	714.4	703.2	686.6	663.7	638.9	623.3	606.2	591.6	582.3	583.3
7.5°	717.3	711.0	688.6	652.0	609.1	566.2	533.6	495.6	478.0	466.3	471.7
10°	715.4	704.6	665.7	610.1	542.4	482.9	429.3	385.5	355.2	342.6	331.9
12.5°	711.0	695.4	636.9	558.0	471.2	393.3	319.2	261.7	221.7	201.7	199.3
15°	707.1	685.6	603.3	500.9	390.8	289.0	206.1	151.1	117.0	109.2	110.1
17.5°	706.1	676.4	571.1	440.5	312.4	192.5	118.9	96.0	91.1	89.2	88.7
20°	706.6	668.1	536.0	380.6	221.2	119.9	90.2	84.8	82.8	81.9	81.4
22.5°	708.5	658.8	501.4	317.7	151.1	87.7	80.4	77.0	74.6	73.1	72.6
25°	708.5	648.6	462.9	251.0	98.9	77.0	72.1	67.7	64.3	62.4	62.4
27.5°	707.1	636.9	423.0	190.5	78.5	68.7	63.3	57.5	53.1	50.7	50.7
30°	702.7	622.8	384.5	133.0	68.7	61.4	54.6	47.3	41.9	39.5	38.5
32.5°	696.4	607.7	340.1	93.6	61.9	53.6	45.8	38.0	33.1	30.2	30.2
35°	689.5	592.6	292.4	71.6	56.0	47.3	38.5	30.7	26.3	24.4	23.9
37.5°	686.1	576.5	245.6	61.9	50.2	40.4	31.2	24.9	21.4	20.0	19.5
40°	688.6	564.3	199.8	55.6	44.8	34.1	25.8	21.0	18.0	16.1	16.1
42.5°	703.2	557.5	156.4	50.7	40.0	28.8	21.4	17.1	14.1	12.7	12.7
45°	732.9	562.3	118.9	46.3	34.1	23.9	18.0	13.6	10.7	9.3	9.3
47.5°	782.6	581.8	90.2	42.4	29.2	19.5	14.6	10.7	8.3	7.3	6.8
50°	855.2	620.3	70.7	38.5	24.4	16.6	12.2	8.3	6.3	5.4	5.4
52.5°	960.0	687.1	60.4	34.1	20.0	13.6	9.7	6.3	4.9	3.9	3.9
55°	1088.6	771.9	54.6	30.2	16.1	11.2	7.8	4.9	3.4	2.9	2.4
57.5°	1192.9	839.1	51.2	26.3	13.6	9.7	5.8	3.9	2.9	1.9	1.9
60°	1285.0	882.5	45.3	21.9	11.7	7.8	4.9	2.9	1.9	1.5	1.5
62.5°	1359.6	910.8	37.5	17.5	9.7	6.3	3.9	2.4	1.9	1.5	1.5
65°	1444.4	933.7	30.7	13.6	8.3	5.4	3.4	1.9	1.5	1.5	1.5
67.5°	1610.5	984.8	22.9	10.7	6.3	4.4	2.9	1.9	1.5	1.0	1.0
70°	1675.3	924.9	18.0	8.8	4.9	3.9	2.9	1.9	1.0	1.0	1.0
72.5°	1425.8	692.5	14.1	7.3	4.4	3.4	2.9	1.9	1.5	1.5	1.0
75°	1131.0	467.8	11.2	5.8	4.4	3.9	2.9	2.9	2.4	1.9	1.9
77.5°	722.2	207.1	8.8	4.9	4.4	4.9	4.4	2.9	2.9	2.4	2.4
80°	215.4	49.7	6.3	3.9	3.4	3.9	4.4	2.9	1.9	1.5	1.5
82.5°	46.8	11.7	3.9	1.9	2.4	1.9	2.9	2.9	1.9	1.5	1.5
85°	15.6	4.4	2.4	1.9	1.5	1.5	1.5	1.5	1.5	1.5	1.0
87.5°	1.0	1.5	1.5	1.0	1.0	1.0	1.0	0.5	0.5	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)