

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: P401188

Luminaire Tested: **ENT-SA1B-760-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-760-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3031 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.4
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

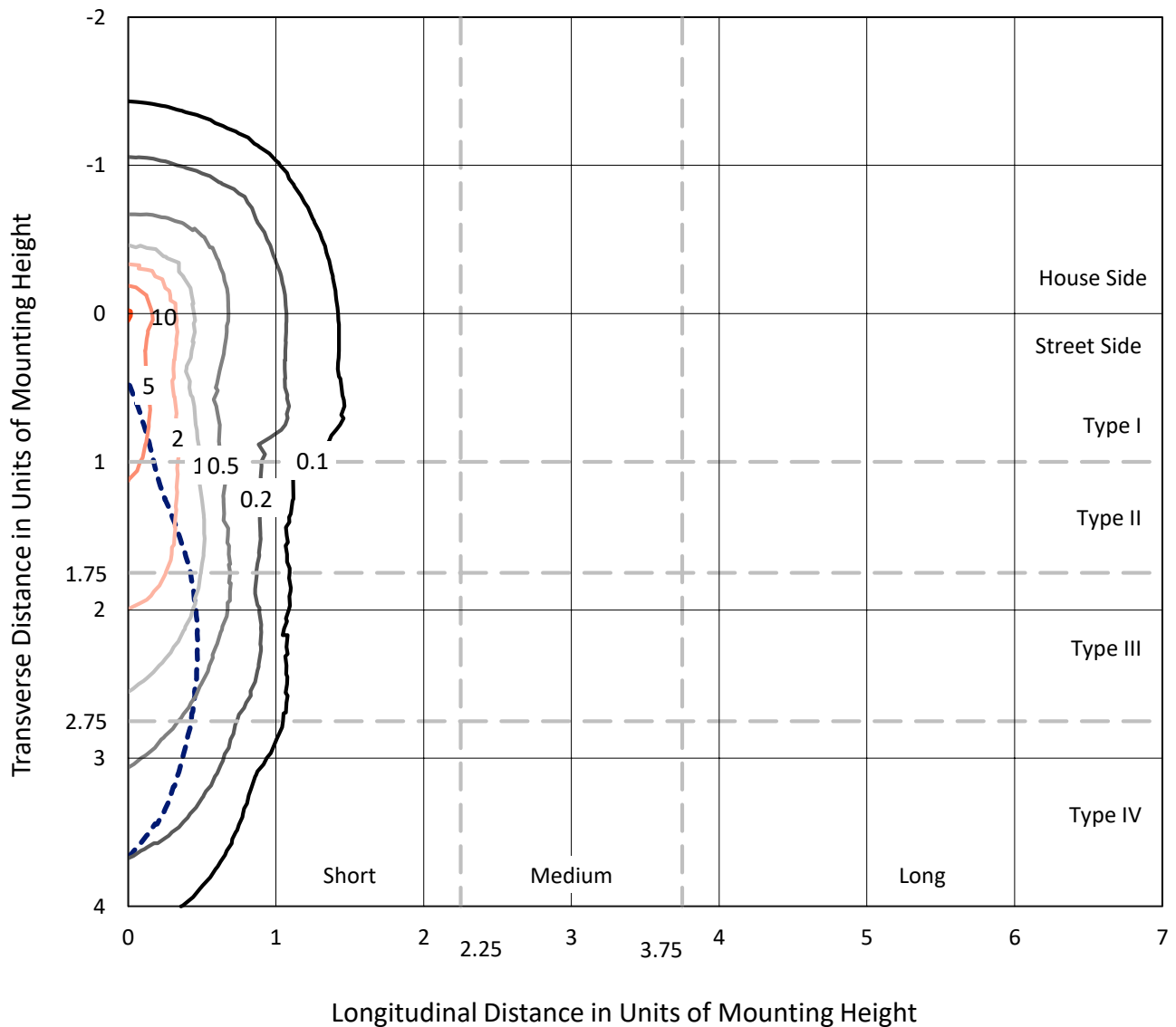


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Iso-Footcandle Lines of Horizontal Illumination

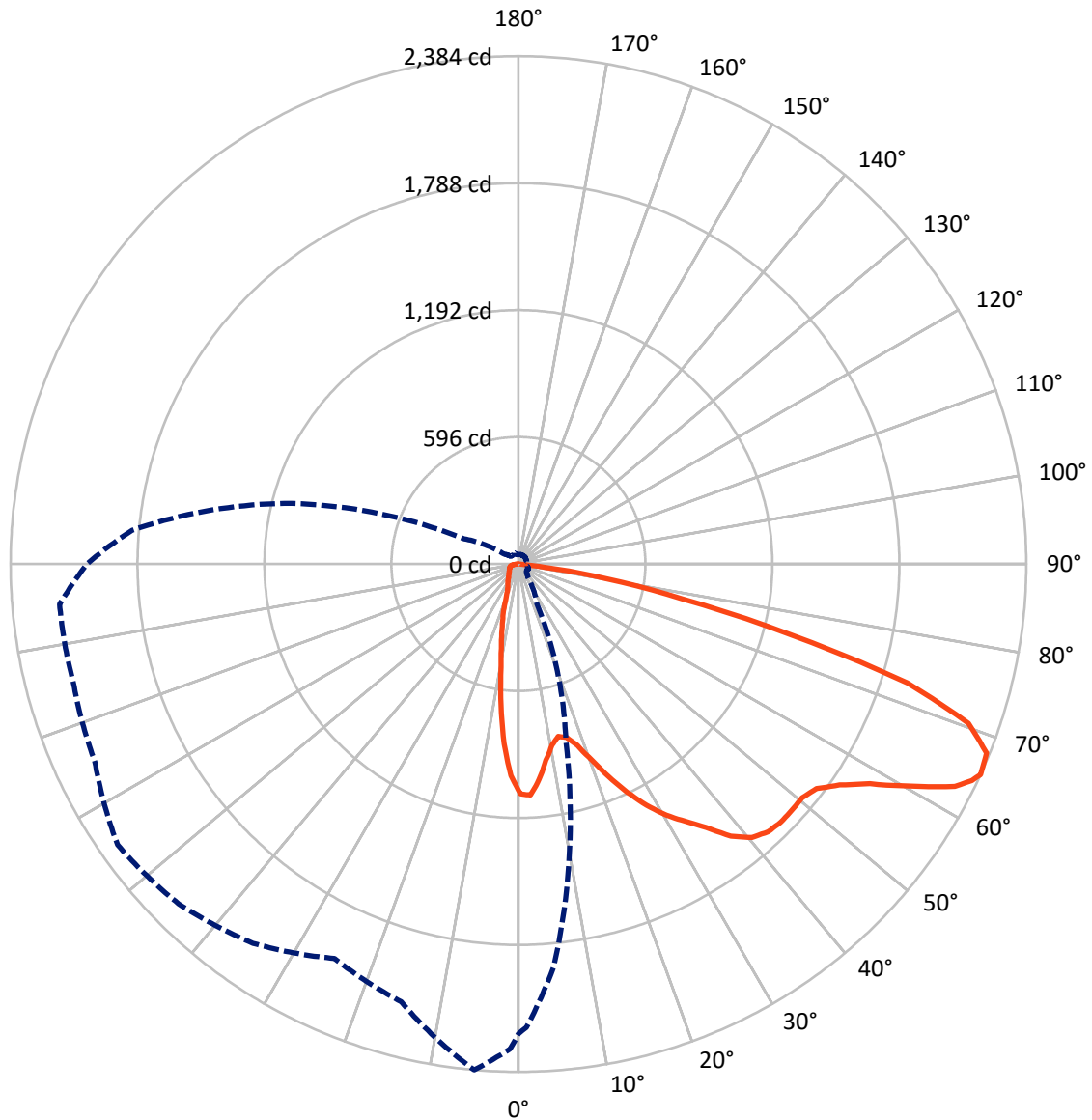
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	621.9	0.0	621.9
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	2409.1	0.0	2409.1
	% Fixture	79.5	0.0	79.5
Total	Lumens	3031.0	0.0	3031.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.3	2.7
10°-20°	163.9	5.4
20°-30°	227.2	7.5
30°-40°	317.7	10.5
40°-50°	432.2	14.3
50°-60°	591.1	19.5
60°-70°	722.7	23.8
70°-80°	436.3	14.4
80°-90°	57.5	1.9
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°	3031.0	100.0
0°-180°	3031.0	100.0



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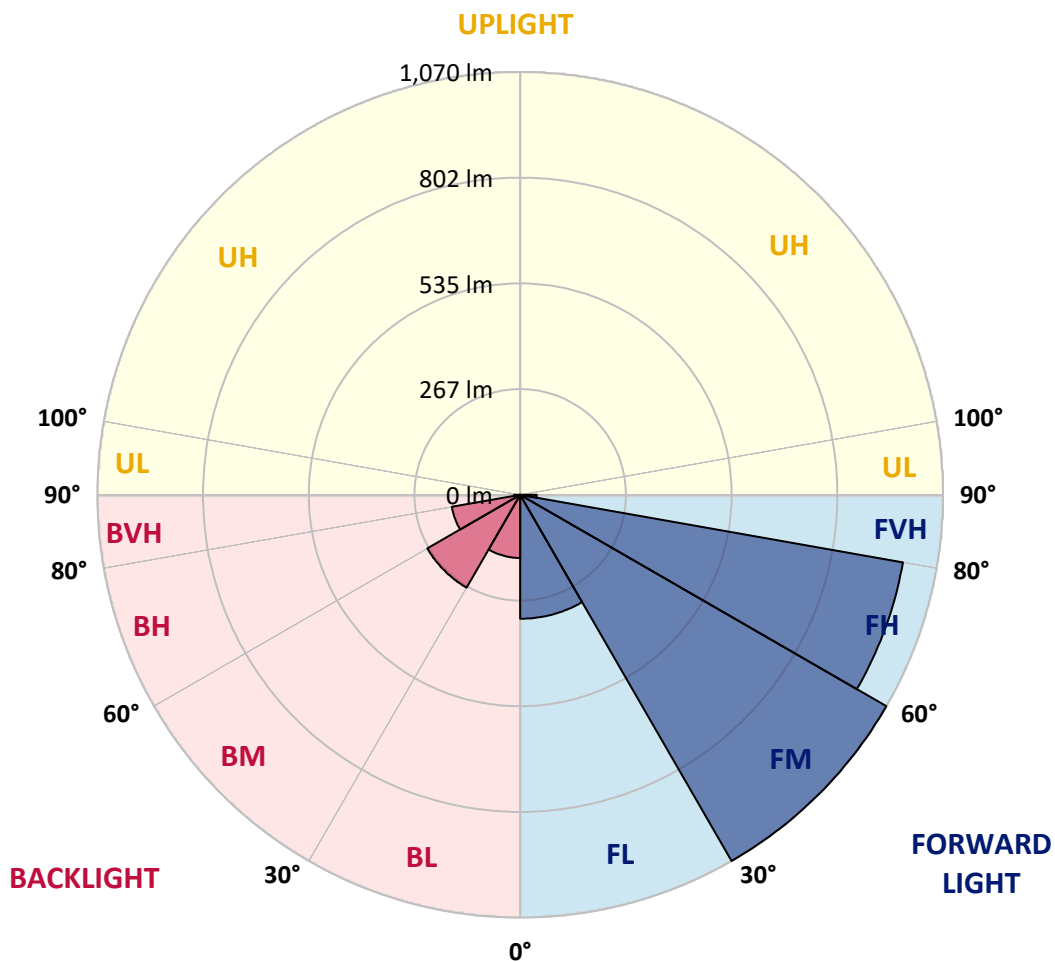
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	313.6	10.3			
FM	(30°-60°)	1069.9	35.3			
FH	(60°-80°)	983.5	32.4			G1/1800
FVH	(80°-90°)	42.0	1.4			G1/100
BL	(0°-30°)	159.8	5.3	B1/500		
BM	(30°-60°)	271.1	8.9	B1/1000		
BH	(60°-80°)	175.5	5.8	B1/500		G1/500
BVH	(80°-90°)	15.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6
2.5°	1076.1	1073.0	1065.4	1045.1	1023.3	997.5	992.9	965.1	968.1	960.0	962.0
5°	982.8	978.7	958.0	917.4	862.2	830.2	805.4	790.7	778.5	772.4	780.0
7.5°	892.1	886.5	861.7	790.2	728.9	678.2	637.6	612.8	588.5	569.2	560.1
10°	818.6	816.5	783.6	703.0	626.0	564.1	537.8	511.4	490.6	463.3	441.0
12.5°	781.6	775.5	736.5	642.7	567.7	529.7	504.8	471.4	443.0	409.5	380.6
15°	783.1	776.0	727.3	629.0	547.4	501.3	463.3	423.2	381.7	347.7	318.3
17.5°	826.7	821.6	762.3	641.7	530.2	466.3	407.0	355.3	309.7	267.1	240.8
20°	900.2	892.6	810.5	656.9	508.4	426.3	345.7	274.7	225.6	188.0	167.3
22.5°	996.0	981.8	878.9	675.6	486.6	380.6	279.3	200.2	156.6	137.9	132.3
25°	1098.4	1087.2	961.5	699.5	463.3	331.0	206.8	145.5	130.3	122.7	118.6
27.5°	1192.6	1174.4	1050.2	725.8	432.3	281.3	157.1	125.2	115.1	111.5	109.0
30°	1260.0	1244.3	1111.5	756.2	405.5	229.6	134.3	113.5	105.4	99.9	98.8
32.5°	1324.4	1302.1	1156.1	770.4	383.2	201.7	124.2	105.4	97.8	92.2	90.2
35°	1400.4	1378.1	1207.3	772.4	366.5	190.1	114.5	99.3	91.2	86.2	83.6
37.5°	1490.2	1459.7	1265.1	774.0	349.7	185.5	106.4	94.3	86.2	80.6	78.6
40°	1575.3	1552.0	1324.4	771.4	338.6	178.9	101.4	88.7	81.1	76.0	73.5
42.5°	1639.7	1614.8	1375.1	763.8	332.0	167.8	103.4	84.6	77.5	72.0	68.9
45°	1672.6	1650.3	1421.2	756.7	328.4	158.1	101.4	83.1	75.0	68.4	65.4
47.5°	1697.5	1675.7	1468.4	753.7	322.4	151.0	93.3	88.7	72.5	64.9	61.8
50°	1737.5	1718.7	1532.2	770.9	312.7	146.5	85.7	94.8	71.5	61.8	58.3
52.5°	1809.5	1797.3	1637.6	811.0	302.6	138.9	78.1	90.7	72.5	59.8	55.8
55°	1943.8	1936.2	1782.6	863.7	293.0	129.2	69.9	82.1	72.0	56.3	53.2
57.5°	2088.7	2086.7	1958.5	909.8	278.8	113.0	64.9	69.4	68.4	53.2	49.7
60°	2186.1	2179.5	2039.6	935.7	260.5	93.3	60.8	58.8	69.9	50.2	46.1
62.5°	2219.5	2197.7	2015.3	926.0	233.2	80.6	56.3	53.7	64.9	47.1	42.6
64°	2217.5	2185.6	1951.9	889.5	215.4	78.1	53.7	50.2	57.3	45.1	41.1
65°	2205.8	2175.4	1899.2	861.1	205.8	78.1	52.2	48.7	52.2	44.1	40.0
67.5°	2131.3	2091.3	1719.3	729.4	180.9	79.1	48.7	44.6	43.6	40.5	37.5
70°	1961.5	1909.3	1472.4	573.8	167.8	79.6	44.6	40.5	39.0	37.0	34.5
72.5°	1575.3	1505.4	1171.8	410.0	154.1	78.1	40.5	37.0	35.5	33.5	30.9
75°	1056.3	979.7	863.7	270.2	126.2	69.9	35.0	31.9	31.4	29.4	27.4
77.5°	595.6	563.6	509.9	148.5	87.2	48.2	27.9	25.8	26.4	25.3	23.3
80°	311.2	296.5	272.7	72.0	42.1	23.3	17.7	17.7	20.3	20.3	19.3
82.5°	110.0	110.5	106.9	16.2	8.6	7.1	6.1	8.6	11.7	14.2	14.2
85°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.5
87.5°	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6
2.5°	944.8	947.8	955.9	954.4	962.5	959.0	969.6	975.2	978.2	993.9	1001.5
5°	774.0	775.0	803.9	810.0	825.2	817.0	835.8	828.7	843.9	845.9	871.3
7.5°	568.7	570.7	584.9	618.4	651.3	665.0	670.6	679.2	672.1	669.6	673.1
10°	432.3	433.9	435.4	459.2	488.1	517.0	517.0	517.5	504.8	492.2	489.6
12.5°	369.5	359.9	344.7	345.2	365.4	379.1	389.8	378.6	376.6	382.7	389.3
15°	304.1	294.5	284.3	272.2	272.7	282.3	287.9	287.4	297.5	302.1	315.8
17.5°	236.2	222.5	223.0	215.9	206.3	212.4	213.9	223.0	236.2	242.3	244.8
20°	158.6	158.6	162.7	171.3	166.8	170.8	171.3	178.4	184.5	180.9	184.5
22.5°	131.3	130.8	132.3	137.9	142.4	146.0	147.0	146.5	140.4	137.9	142.9
25°	119.1	118.6	119.1	122.2	127.2	131.8	129.8	126.7	119.6	119.1	120.1
27.5°	109.0	109.5	110.5	112.5	115.6	121.1	119.1	113.0	109.5	108.5	108.5
30°	100.4	100.4	102.4	104.4	108.0	113.0	109.5	104.4	100.9	99.9	99.3
32.5°	91.7	93.3	94.8	96.8	99.9	104.9	101.9	97.3	93.8	91.7	90.2
35°	83.1	84.1	87.2	90.2	92.8	96.8	94.8	90.7	87.2	82.6	80.6
37.5°	78.1	78.1	79.6	84.1	86.2	89.2	88.2	84.6	79.1	75.5	75.0
40°	73.5	73.5	74.0	76.5	80.1	83.6	81.6	76.0	72.5	71.0	70.5
42.5°	68.9	68.9	69.4	69.4	74.0	80.1	75.0	69.4	67.9	66.9	66.4
45°	64.9	64.9	64.9	64.4	66.9	74.5	68.9	64.4	63.4	63.4	62.8
47.5°	61.8	61.3	60.8	59.8	61.3	67.4	62.8	60.3	59.8	60.3	59.8
50°	57.8	57.3	56.8	56.3	57.3	59.8	58.8	56.3	56.8	56.8	57.3
52.5°	54.2	53.7	53.2	52.7	53.7	55.8	55.8	53.7	53.7	54.2	54.7
55°	52.2	51.2	50.7	50.7	51.2	53.7	53.2	51.7	51.7	52.7	53.2
57.5°	49.2	48.2	48.2	47.6	48.7	51.7	51.2	49.7	49.7	50.2	51.2
60°	46.1	45.6	45.1	46.1	46.6	49.7	49.2	48.2	47.6	49.2	49.2
62.5°	42.6	42.6	42.6	43.6	44.1	47.6	47.1	46.6	46.6	47.1	46.6
64°	40.5	40.5	41.1	41.6	42.6	45.6	45.6	45.6	45.6	45.6	45.1
65°	39.5	39.5	40.5	41.1	41.6	45.1	44.6	45.1	45.6	45.1	44.1
67.5°	37.0	37.0	38.5	38.5	39.0	43.1	42.6	43.6	44.6	43.6	42.6
70°	34.0	34.5	36.0	35.5	36.5	41.1	39.5	41.6	43.6	42.1	41.1
72.5°	30.9	31.4	33.5	32.4	32.9	38.5	36.5	38.5	41.6	40.5	39.5
75°	27.9	28.4	29.9	29.4	30.4	35.5	33.5	35.5	38.5	38.5	38.0
77.5°	23.8	24.8	25.8	25.3	27.4	31.9	29.9	31.4	34.0	36.0	35.0
80°	19.3	20.8	21.3	21.8	23.8	27.4	25.8	26.4	28.9	30.4	30.9
82.5°	13.2	15.7	16.7	17.2	20.3	21.3	21.8	21.3	22.8	24.8	23.3
85°	4.1	5.1	9.6	12.2	15.2	15.2	17.7	16.7	17.7	15.7	13.2
87.5°	0.0	0.0	0.0	3.5	9.1	9.1	12.7	11.7	12.2	9.1	8.1
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6
2.5°	1003.1	1011.7	1030.9	1053.2	1065.4	1091.8	1108.0	1125.2	1142.5	1146.0	1151.6
5°	876.4	886.5	908.3	938.2	968.1	1003.1	1043.6	1086.7	1134.3	1154.6	1174.4
7.5°	682.7	684.8	715.7	769.9	796.3	845.9	903.7	970.1	1043.6	1081.6	1122.2
10°	504.3	525.1	548.4	593.5	659.9	717.2	788.7	866.2	942.7	998.0	1040.1
12.5°	396.4	422.7	461.2	510.9	561.1	615.3	697.9	781.1	875.3	925.0	976.7
15°	326.4	359.9	410.0	462.3	508.9	557.0	630.5	732.4	853.0	903.7	949.8
17.5°	258.5	295.5	349.2	404.0	459.7	518.5	603.7	729.9	876.9	935.7	983.3
20°	198.2	227.1	272.2	327.4	392.8	473.4	582.4	749.1	947.3	1020.8	1052.2
22.5°	147.0	163.7	199.2	257.0	334.0	433.4	561.1	776.5	1034.5	1120.7	1144.5
25°	121.6	126.2	142.4	192.6	272.2	388.3	544.9	812.0	1121.7	1218.5	1235.7
27.5°	109.5	112.0	119.6	138.4	212.9	351.3	523.6	853.0	1213.4	1315.3	1313.8
30°	98.8	99.3	103.9	117.1	172.8	318.3	498.7	898.7	1295.0	1384.7	1380.2
32.5°	89.2	89.2	95.3	105.4	147.5	288.4	468.8	931.6	1366.0	1441.5	1426.8
35°	80.6	82.1	87.7	97.8	130.8	254.9	441.0	943.8	1426.8	1509.9	1468.4
37.5°	74.5	76.5	82.1	91.7	116.6	230.1	418.2	958.0	1501.8	1592.5	1515.0
40°	70.5	72.0	77.0	85.2	105.4	209.3	393.3	967.6	1576.3	1680.7	1564.2
42.5°	66.4	67.9	73.0	80.6	100.4	185.0	369.5	973.2	1653.9	1757.3	1605.2
45°	62.8	64.9	69.9	77.0	100.9	163.2	349.7	971.1	1700.5	1812.5	1637.1
47.5°	60.3	62.3	67.9	77.0	97.8	150.5	333.0	964.0	1735.0	1848.5	1651.8
50°	57.8	59.8	66.4	85.2	92.8	147.0	320.3	963.0	1771.0	1855.6	1651.8
52.5°	55.2	58.8	66.9	85.7	85.2	145.5	310.2	989.9	1820.6	1867.8	1666.5
55°	53.7	56.8	68.9	79.1	74.5	140.4	304.1	1026.9	1904.3	1934.7	1740.5
57.5°	51.7	54.2	67.9	74.0	66.4	128.7	299.0	1062.4	2014.2	2058.8	1888.0
60°	49.2	52.2	65.9	63.4	60.3	109.5	296.0	1091.8	2055.3	2138.9	2046.7
62.5°	46.6	50.2	72.0	55.2	55.8	91.2	290.4	1120.1	1968.6	2119.7	2148.6
64°	45.1	48.7	66.9	51.7	53.2	83.1	284.9	1121.7	1892.1	2074.0	2167.8
65°	44.1	47.1	62.3	49.7	51.2	81.1	279.8	1100.4	1820.1	2025.4	2162.2
67.5°	42.6	44.6	48.2	46.1	47.6	77.5	245.3	1006.6	1667.0	1900.2	2075.6
70°	40.5	42.1	42.6	42.1	44.6	75.0	207.3	873.3	1499.8	1768.9	1940.7
72.5°	38.5	38.5	38.5	38.0	41.1	71.5	186.5	705.5	1296.0	1596.6	1773.0
75°	37.0	35.5	35.0	34.0	37.5	69.4	168.3	529.7	1001.5	1330.0	1485.6
77.5°	34.0	32.4	30.9	29.9	33.5	61.8	140.4	374.1	738.5	967.6	1146.5
80°	29.4	28.4	26.4	24.8	27.9	48.7	106.4	231.1	540.3	653.3	752.2
82.5°	23.8	23.3	21.3	19.3	20.3	35.0	72.5	117.6	360.4	354.8	420.2
85°	14.7	18.2	15.7	12.7	13.7	20.3	29.4	37.5	110.5	66.4	102.9
87.5°	8.6	11.7	9.6	6.6	5.1	9.1	8.1	7.6	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	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6	1078.6
2.5°	1164.8	1171.3	1174.9	1161.7	1147.5	1134.8	1110.5	1086.2	1073.5	1076.1
5°	1212.4	1223.5	1226.6	1207.3	1167.3	1126.2	1066.9	1015.7	984.8	982.8
7.5°	1194.1	1230.6	1236.7	1215.9	1158.7	1082.1	1001.5	930.1	899.2	892.1
10°	1129.3	1185.0	1203.3	1196.2	1140.4	1052.7	954.9	864.2	833.3	818.6
12.5°	1062.9	1121.2	1132.3	1139.4	1105.4	1031.4	924.0	830.7	793.7	781.6
15°	1019.3	1059.3	1062.4	1069.0	1061.9	1021.3	938.2	844.4	799.8	783.1
17.5°	1013.2	999.0	989.4	1003.1	1011.7	1021.8	975.2	895.6	848.0	826.7
20°	1014.2	970.1	942.7	941.7	978.7	1035.0	1050.2	981.8	919.9	900.2
22.5°	1051.2	954.9	909.3	903.7	948.8	1057.3	1126.7	1084.2	1022.3	996.0
25°	1106.5	945.8	885.5	887.0	932.1	1072.0	1192.1	1186.5	1132.3	1098.4
27.5°	1159.7	961.0	882.4	886.5	937.7	1081.6	1246.4	1282.8	1222.0	1192.6
30°	1202.3	995.0	891.6	895.1	954.9	1094.8	1273.2	1368.5	1295.0	1260.0
32.5°	1239.3	1026.9	905.2	907.8	982.3	1113.6	1298.6	1440.5	1366.0	1324.4
35°	1272.7	1054.3	926.0	934.6	1017.3	1140.4	1324.4	1518.5	1452.6	1400.4
37.5°	1302.1	1087.7	967.1	981.3	1068.4	1179.5	1357.9	1621.4	1549.5	1490.2
40°	1318.8	1117.6	1027.9	1049.2	1134.8	1230.1	1400.4	1688.3	1642.2	1575.3
42.5°	1331.5	1158.7	1125.7	1164.2	1237.7	1277.8	1420.7	1718.2	1696.9	1639.7
45°	1338.1	1239.8	1272.7	1308.7	1353.8	1330.0	1409.6	1728.4	1721.8	1672.6
47.5°	1368.0	1361.9	1443.0	1492.7	1490.2	1408.5	1388.3	1727.4	1738.0	1697.5
50°	1428.8	1504.3	1617.9	1666.5	1647.8	1482.0	1384.2	1725.8	1770.4	1737.5
52.5°	1501.3	1646.8	1806.9	1827.2	1787.7	1556.6	1414.6	1752.2	1831.3	1809.5
55°	1596.6	1780.6	1955.4	1962.0	1906.3	1629.0	1479.5	1829.7	1944.8	1943.8
57.5°	1729.4	1900.7	2080.1	2072.0	1993.5	1729.4	1583.9	1945.8	2071.0	2088.7
60°	1873.8	2027.4	2181.0	2176.4	2092.8	1845.0	1727.4	2117.6	2181.5	2186.1
62.5°	2012.2	2145.0	2278.3	2256.5	2162.2	1964.6	1926.0	2300.1	2253.5	2219.5
64°	2102.4	2184.5	2303.1	2268.7	2179.0	2021.8	2040.6	2359.4	2273.7	2217.5
65°	2162.2	2194.2	2297.6	2256.0	2173.4	2043.1	2127.3	2384.2	2277.3	2205.8
67.5°	2269.7	2138.9	2146.5	2113.6	2039.6	2023.4	2269.2	2370.6	2238.3	2131.3
70°	2239.8	1916.4	1812.0	1791.2	1702.5	1793.8	2251.4	2241.8	2091.8	1961.5
72.5°	1984.3	1538.8	1388.8	1370.0	1246.9	1359.4	1942.8	1909.3	1683.3	1575.3
75°	1635.1	1166.3	991.9	1007.6	913.9	1017.8	1545.4	1308.2	1120.7	1056.3
77.5°	1269.2	824.1	685.3	666.5	647.8	658.9	1062.4	785.6	654.9	595.6
80°	808.9	518.0	514.0	469.9	454.6	383.2	545.9	418.2	328.9	311.2
82.5°	429.8	298.5	339.1	271.7	218.5	157.1	185.0	124.2	104.9	110.0
85°	117.6	61.8	17.2	0.0	0.0	0.0	0.0	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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