

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: P401433

Luminaire Tested: **ENT-SA1D-727-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401433
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-727-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3956 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

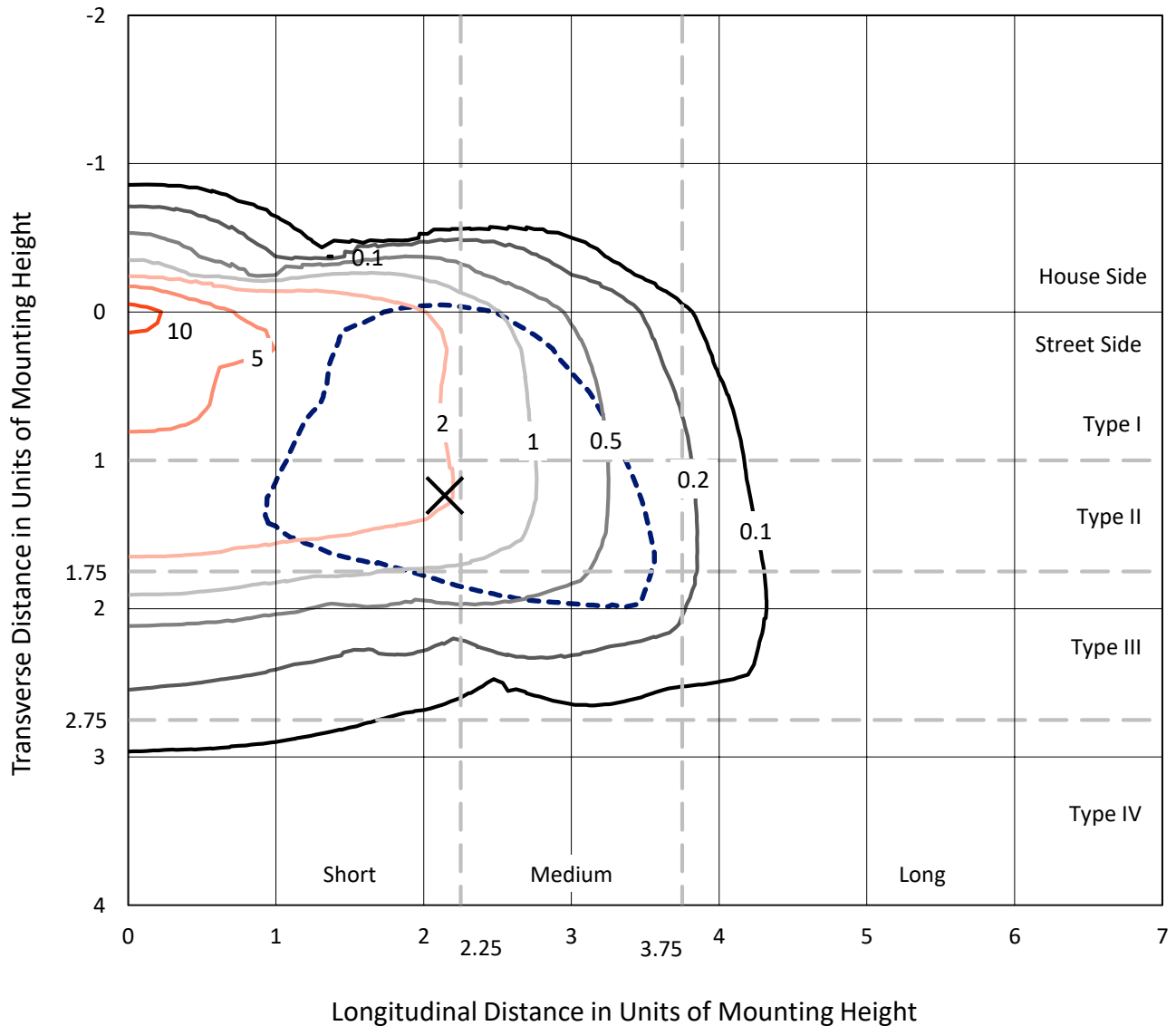
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

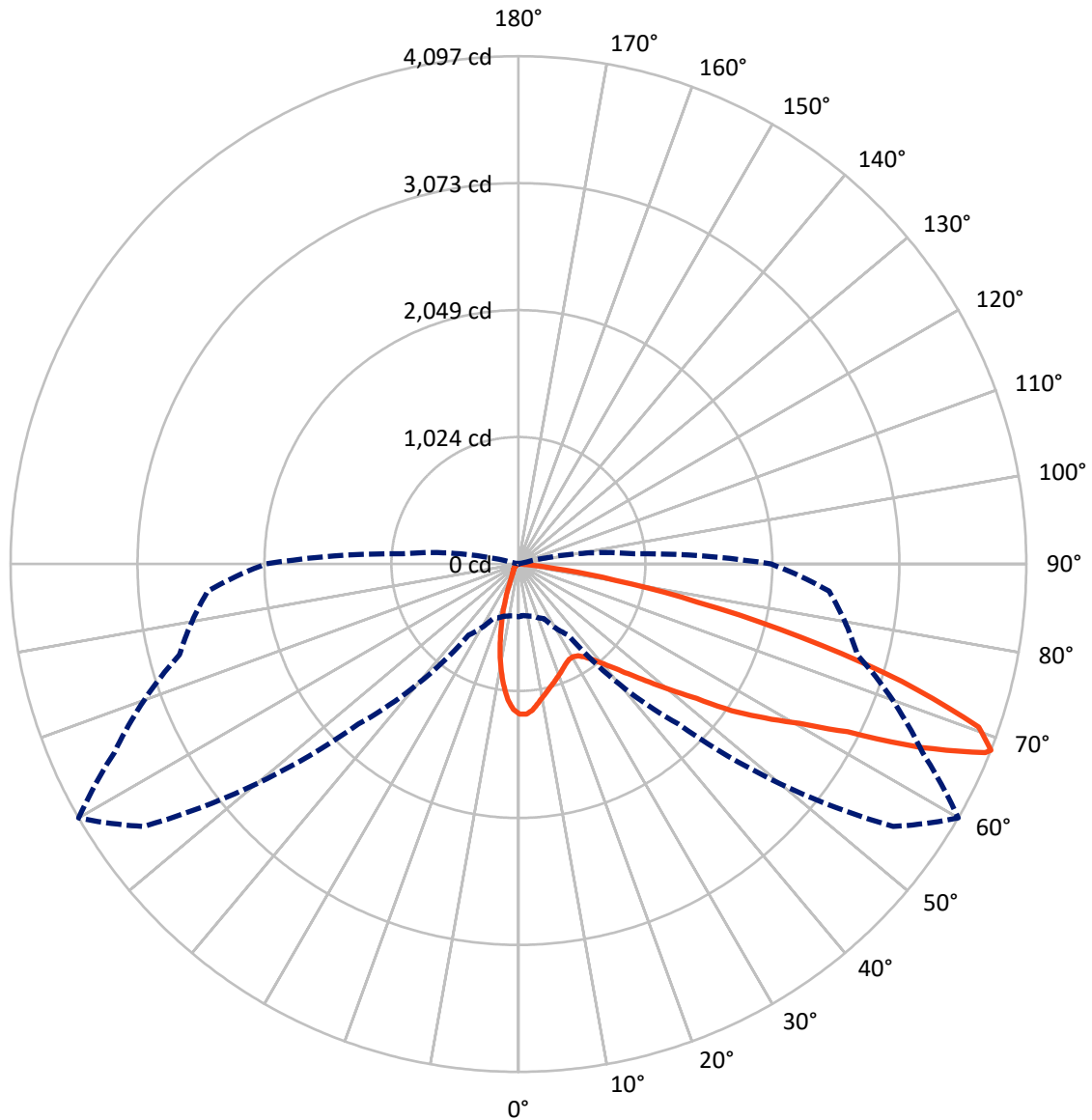
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	442.3	0.0	442.3
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	3513.7	0.0	3513.7
	% Fixture	88.8	0.0	88.8
Total	Lumens	3956.0	0.0	3956.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	2.5
10°-20°	200.4	5.1
20°-30°	263.9	6.7
30°-40°	364.1	9.2
40°-50°	552.0	14.0
50°-60°	890.7	22.5
60°-70°	1058.1	26.7
70°-80°	498.8	12.6
80°-90°	29.8	0.8
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°	3956.0	100.0
0°-180°	3956.0	100.0



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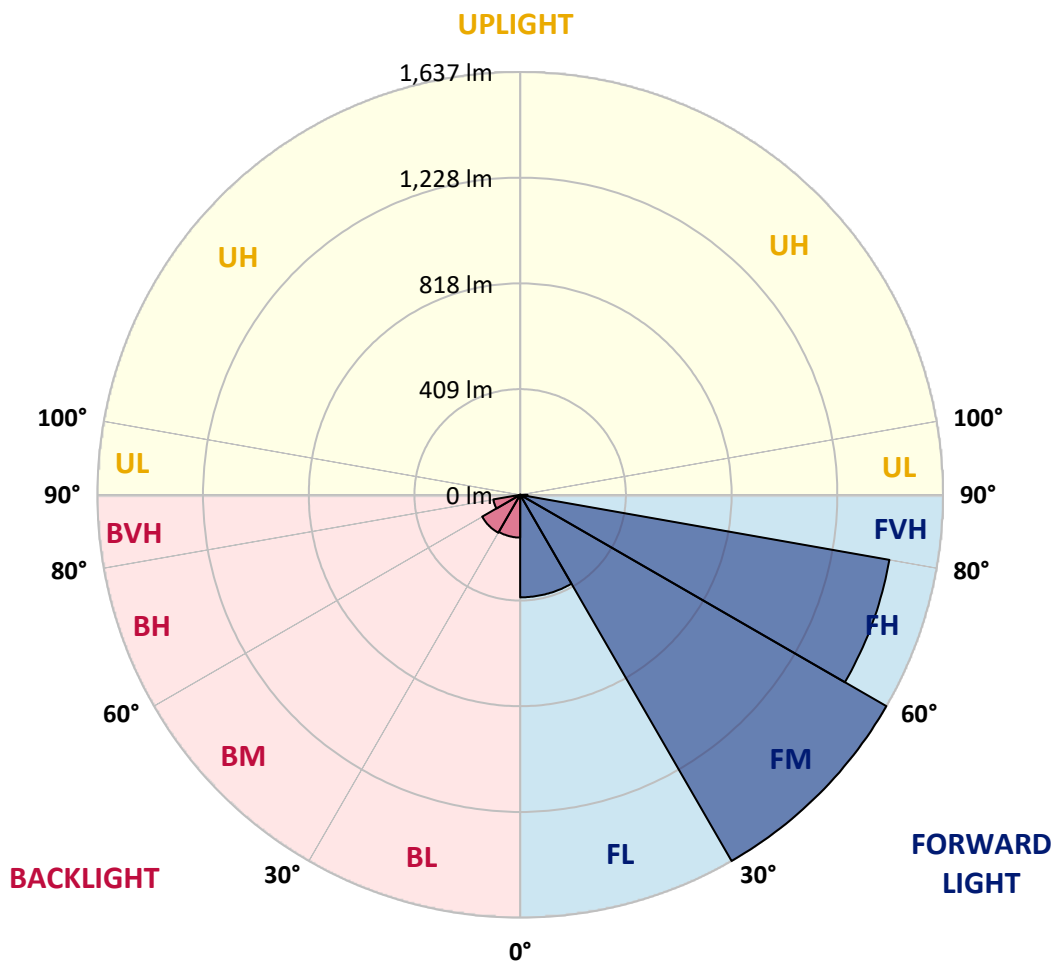
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	397.0	10.0			
FM	(30°-60°)	1636.8	41.4			
FH	(60°-80°)	1451.3	36.7			G1/1800
FVH	(80°-90°)	28.5	0.7			G1/100
BL	(0°-30°)	165.5	4.2	B1/500		
BM	(30°-60°)	170.0	4.3	B0/220		
BH	(60°-80°)	105.5	2.7	B0/110		G0/110
BVH	(80°-90°)	1.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9
2.5°	1200.1	1197.5	1204.8	1206.9	1208.9	1212.9	1212.2	1212.9	1213.6	1212.2	1204.2
5°	1118.3	1123.0	1129.7	1138.4	1147.1	1167.3	1175.3	1183.4	1188.7	1192.8	1185.4
7.5°	1037.7	1047.1	1052.5	1068.6	1082.0	1102.8	1120.3	1134.4	1147.8	1162.6	1155.2
10°	973.3	976.6	981.3	996.1	1016.2	1047.8	1070.6	1088.1	1104.2	1129.0	1123.0
12.5°	910.2	912.2	921.6	937.7	958.5	997.4	1027.6	1047.8	1065.9	1096.8	1097.5
15°	863.9	864.5	870.6	885.3	909.5	951.1	990.1	1012.2	1037.7	1075.3	1077.3
17.5°	833.7	833.0	834.3	843.7	866.5	906.2	953.1	979.3	1009.5	1057.8	1059.9
20°	824.3	822.9	820.2	818.2	832.3	866.5	919.6	948.4	984.0	1045.1	1045.8
22.5°	832.3	829.6	823.6	812.2	816.2	838.4	882.7	917.6	961.2	1038.4	1033.7
25°	851.8	851.8	843.7	825.6	816.2	820.9	856.5	890.0	938.4	1035.0	1025.0
27.5°	884.0	882.7	871.9	853.1	835.7	822.9	840.4	871.9	921.6	1039.1	1020.9
30°	922.9	918.9	907.5	894.1	872.6	845.1	843.7	867.2	913.5	1051.8	1023.6
32.5°	959.8	959.8	955.2	942.4	921.6	885.3	864.5	883.3	923.6	1072.6	1032.3
35°	1005.5	1004.8	1006.2	1001.5	983.3	945.1	911.5	920.9	954.5	1107.5	1053.1
37.5°	1041.7	1042.4	1053.8	1061.9	1053.8	1013.5	978.6	978.6	1006.8	1159.9	1088.7
40°	1077.3	1078.7	1100.1	1123.6	1125.6	1093.4	1059.9	1059.2	1075.3	1224.3	1143.8
42.5°	1109.5	1114.9	1145.8	1186.1	1209.5	1188.1	1163.2	1155.2	1163.2	1321.6	1233.0
45°	1143.8	1154.5	1197.5	1255.9	1294.1	1294.8	1285.4	1276.0	1280.0	1431.0	1352.5
47.5°	1188.1	1200.1	1253.8	1325.7	1398.2	1417.0	1425.7	1422.3	1411.6	1569.3	1506.9
50°	1259.9	1271.3	1321.6	1402.2	1501.5	1569.3	1592.8	1596.8	1582.7	1722.4	1682.1
52.5°	1382.0	1388.8	1435.7	1499.5	1610.9	1737.8	1799.6	1800.2	1768.7	1901.6	1871.4
55°	1512.9	1530.4	1585.4	1659.3	1774.0	1916.3	2070.7	2087.5	1990.2	2058.6	2009.6
57.5°	1515.0	1531.7	1623.0	1764.6	2004.9	2193.6	2331.2	2343.2	2235.2	2184.8	2139.9
60°	1355.2	1363.9	1490.8	1698.2	2087.5	2567.4	2627.8	2609.7	2407.0	2315.1	2303.0
62.5°	956.5	960.5	1110.9	1384.1	1904.9	2746.0	3079.6	2982.2	2651.3	2507.0	2547.3
65°	602.1	600.1	662.5	880.6	1417.0	2570.1	3638.0	3566.9	3100.4	2747.3	2737.9
67.5°	444.4	433.6	450.4	518.2	809.5	2017.7	3740.7	4061.6	3528.0	2847.3	2572.8
68°	426.2	416.8	434.3	486.6	700.1	1826.4	3691.1	4097.1	3595.7	2831.2	2516.4
70°	361.8	353.1	367.8	407.4	487.3	1185.4	3256.8	3939.4	3657.5	2694.3	2217.7
72.5°	257.1	261.8	300.7	349.7	412.8	608.1	2398.3	3235.3	3146.0	2396.3	1687.5
75°	152.4	161.1	212.1	281.9	379.2	401.4	1547.2	2352.0	2308.3	1659.3	914.2
77.5°	53.7	57.1	105.4	187.9	312.8	318.2	861.9	1478.7	1375.3	677.9	269.8
80°	19.5	19.5	38.9	104.7	202.0	243.0	457.8	789.4	543.0	175.9	74.5
82.5°	3.4	3.4	8.7	35.6	89.3	129.5	212.8	280.6	161.1	38.9	36.9
85°	0.0	0.0	0.0	0.0	1.3	1.3	62.4	63.1	29.5	5.4	16.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.7	1.3	1.3	1.3	1.3	2.0
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°	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9	1210.9
2.5°	1200.8	1199.5	1192.1	1178.7	1167.3	1148.5	1145.1	1127.0	1120.3	1114.9	1120.3
5°	1180.0	1172.6	1147.8	1117.6	1076.6	1028.3	1000.1	961.2	953.1	931.7	944.4
7.5°	1145.8	1129.0	1082.7	1017.6	942.4	868.6	812.2	757.8	711.5	695.4	690.7
10°	1109.5	1086.0	1008.2	907.5	798.8	685.3	601.4	522.9	479.3	438.3	437.0
12.5°	1075.3	1039.7	927.0	786.7	635.0	500.1	391.3	308.8	257.1	228.9	236.3
15°	1047.8	1000.1	845.1	665.9	473.9	322.2	221.5	168.5	150.4	141.6	143.0
17.5°	1020.9	957.8	765.9	539.7	337.6	198.7	143.6	125.5	120.1	118.1	116.8
20°	996.8	916.9	682.6	425.6	222.8	137.6	118.1	112.1	110.1	108.7	108.7
22.5°	972.6	873.9	599.4	315.5	152.4	112.8	106.1	103.4	102.0	100.0	100.0
25°	950.5	832.3	516.2	220.8	116.8	100.7	96.0	93.3	90.6	88.6	88.6
27.5°	933.7	800.8	439.0	156.4	98.0	90.6	85.9	81.2	77.9	75.2	75.2
30°	922.9	769.9	364.5	118.1	87.3	80.5	74.5	68.5	63.1	59.7	59.1
32.5°	916.9	744.4	295.3	96.7	77.9	70.5	63.1	56.4	50.3	46.3	46.3
35°	919.6	724.3	226.2	81.9	70.5	61.8	53.7	45.6	40.3	36.9	36.2
37.5°	937.0	712.8	168.5	72.5	63.1	53.7	45.6	37.6	32.2	29.5	28.9
40°	969.9	715.5	128.2	65.8	57.7	47.0	37.6	30.9	26.2	23.5	23.5
42.5°	1036.4	735.0	101.4	60.4	51.7	40.3	31.5	25.5	21.5	19.5	18.8
45°	1124.3	771.9	83.2	55.7	45.6	34.2	26.8	21.5	17.5	15.4	15.4
47.5°	1257.2	831.0	71.8	51.0	39.6	28.9	22.2	17.5	13.4	12.1	11.4
50°	1410.9	913.5	63.1	45.6	34.9	24.2	18.8	13.4	10.7	8.7	8.7
52.5°	1568.0	1005.5	57.1	40.9	30.2	20.8	14.8	10.1	7.4	6.0	6.0
55°	1712.3	1082.7	51.0	36.9	25.5	17.5	12.1	8.1	5.4	4.0	4.0
57.5°	1851.9	1153.2	44.3	32.2	20.8	14.1	9.4	6.0	4.0	2.7	2.7
60°	2027.1	1244.4	38.3	27.5	16.8	11.4	7.4	4.7	2.7	2.0	1.3
62.5°	2238.5	1310.9	32.2	22.2	13.4	8.7	5.4	3.4	2.0	0.7	0.7
65°	2316.4	1223.0	26.8	18.1	10.7	6.7	4.0	2.7	1.3	0.7	0.7
67.5°	2098.9	985.4	21.5	14.1	8.1	4.7	3.4	2.0	1.3	0.7	0.7
68°	2038.5	937.0	20.8	13.4	7.4	4.7	2.7	2.0	0.7	0.7	0.0
70°	1721.0	752.4	16.8	10.1	6.0	4.0	2.7	1.3	0.7	0.7	0.0
72.5°	1276.0	518.9	12.1	6.7	4.0	2.7	2.0	1.3	0.7	0.7	0.0
75°	673.2	202.0	9.4	5.4	3.4	2.7	2.0	2.0	1.3	0.7	0.7
77.5°	193.3	63.8	7.4	4.0	3.4	3.4	3.4	2.7	2.7	2.0	1.3
80°	56.4	20.8	4.7	2.7	3.4	3.4	4.0	3.4	3.4	2.7	2.7
82.5°	30.2	8.1	2.7	2.0	2.0	2.7	3.4	2.7	2.0	1.3	0.7
85°	12.8	2.7	2.0	1.3	1.3	1.3	1.3	1.3	1.3	0.7	0.7
87.5°	0.7	1.3	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)