

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: P401405

Luminaire Tested: **ENT-SA1C-830-U-T2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401405
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-830-U-T2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2713 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 33.3
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

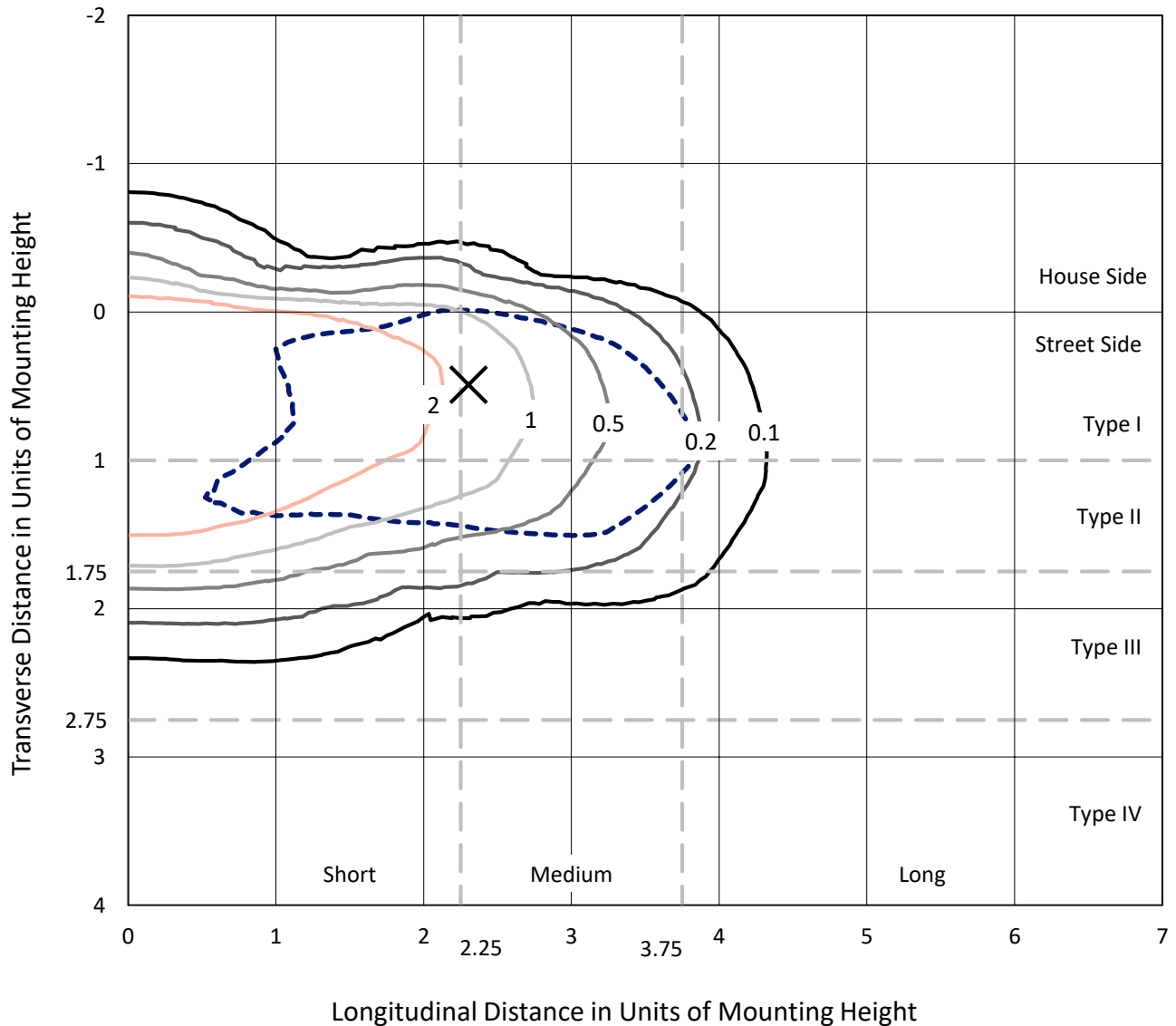


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Iso-Footcandle Lines of Horizontal Illumination

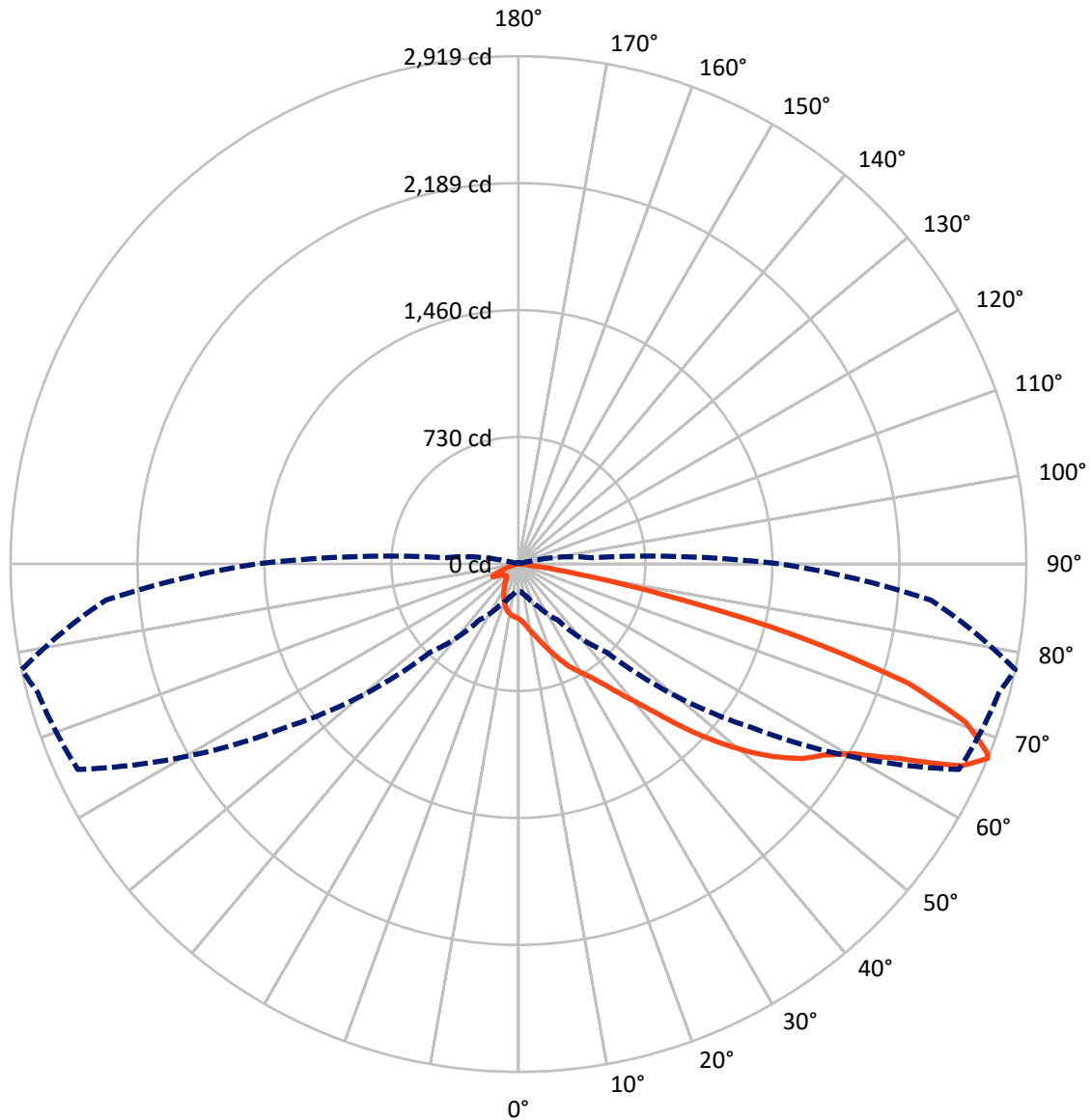
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	191.4	0.0	191.4
	% Fixture	7.1	0.0	7.1
Street Side	Lumens	2521.6	0.0	2521.6
	% Fixture	92.9	0.0	92.9
Total	Lumens	2713.0	0.0	2713.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.4	1.1
10°-20°	87.0	3.2
20°-30°	153.7	5.7
30°-40°	270.9	10.0
40°-50°	465.6	17.2
50°-60°	700.9	25.8
60°-70°	689.8	25.4
70°-80°	301.4	11.1
80°-90°	13.3	0.5
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°	2713.0	100.0
0°-180°	2713.0	100.0



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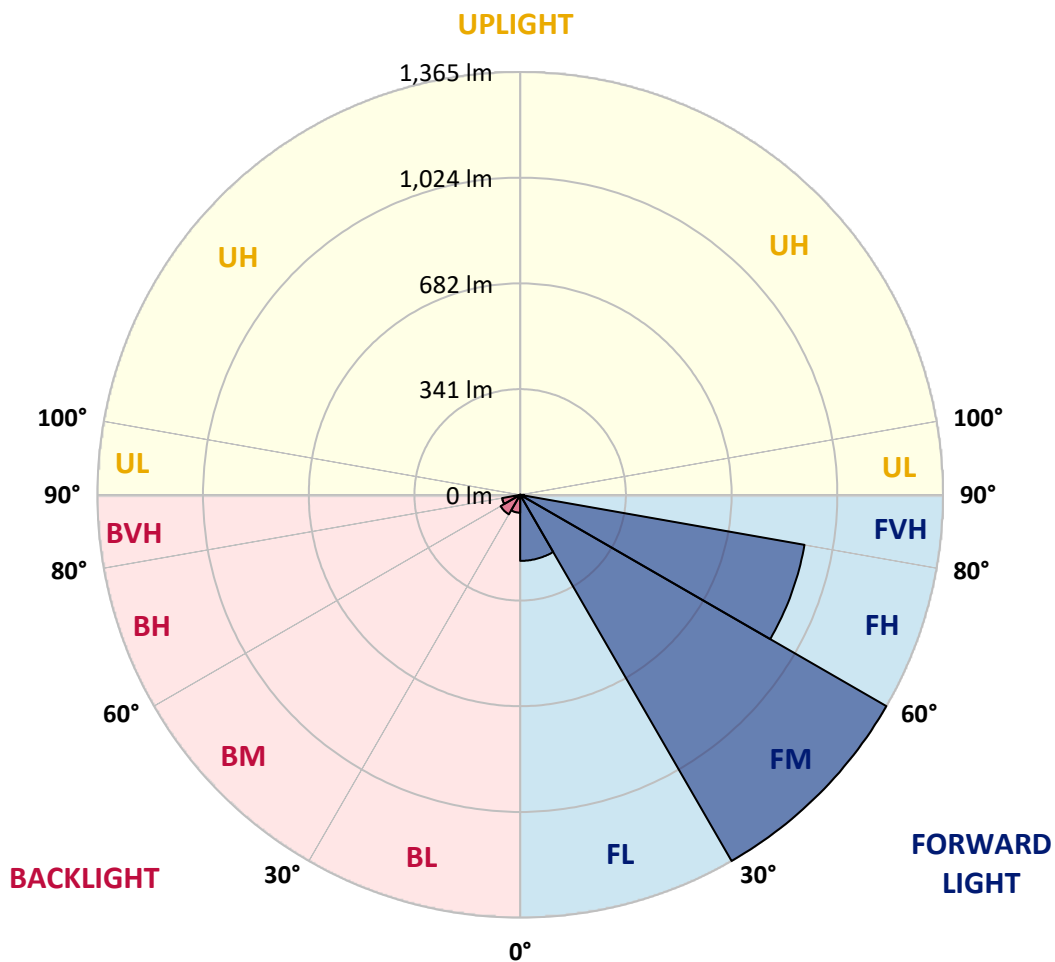
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	213.2	7.9			
FM	(30°-60°)	1364.7	50.3			
FH	(60°-80°)	931.8	34.3			G1/1800
FVH	(80°-90°)	12.0	0.4			G1/100
BL	(0°-30°)	57.8	2.1	B0/110		
BM	(30°-60°)	72.8	2.7	B0/220		
BH	(60°-80°)	59.4	2.2	B0/110		G0/110
BVH	(80°-90°)	1.4	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0
2.5°	361.4	362.9	360.9	359.3	355.3	350.2	345.1	337.4	329.3	326.2	321.1
5°	405.7	405.7	405.7	401.6	398.1	388.4	376.7	364.9	349.7	344.0	332.3
7.5°	429.2	429.7	431.2	431.2	429.2	422.5	409.8	396.5	373.6	366.0	347.1
10°	431.7	433.8	437.8	443.9	448.5	452.1	444.5	430.2	402.7	393.5	366.0
12.5°	425.1	426.1	432.7	443.9	458.7	473.5	474.0	465.4	434.8	422.0	388.9
15°	409.8	411.3	421.0	438.9	461.8	488.3	503.6	501.0	472.5	457.7	414.4
17.5°	385.3	386.9	399.1	425.6	459.2	498.0	530.6	543.3	509.7	495.4	440.4
20°	384.3	384.8	389.4	409.3	449.0	503.6	557.1	587.2	555.1	539.8	471.0
22.5°	449.6	445.5	435.3	422.5	439.9	502.1	581.1	633.6	611.1	587.2	506.1
25°	522.4	524.0	512.8	482.7	460.8	499.5	599.4	686.1	663.6	639.7	542.3
27.5°	598.9	596.3	586.7	559.1	522.4	517.9	612.7	728.4	714.1	685.0	574.4
30°	673.3	671.3	664.1	636.1	596.3	565.3	622.9	766.6	762.0	729.9	600.4
32.5°	758.4	762.0	752.8	716.1	667.7	629.5	644.8	806.9	820.1	780.9	627.4
35°	857.3	857.3	838.5	804.8	754.9	701.3	688.6	851.2	894.0	851.7	670.3
37.5°	938.9	945.5	934.3	885.9	839.0	782.9	755.4	905.7	985.3	942.4	727.9
40°	1003.1	1014.3	1014.8	966.9	923.6	886.9	848.7	982.7	1099.9	1044.9	796.7
42.5°	1062.7	1064.8	1073.4	1045.9	1002.6	992.9	953.6	1073.9	1243.2	1178.4	888.4
45°	1138.7	1142.7	1137.7	1117.3	1080.1	1092.8	1070.9	1189.6	1404.2	1349.7	996.5
47.5°	1250.3	1260.0	1252.3	1215.6	1170.3	1194.2	1178.4	1304.8	1586.2	1519.9	1113.7
50°	1354.8	1362.4	1370.6	1358.9	1313.5	1290.6	1271.2	1426.7	1742.2	1686.1	1228.9
52.5°	1366.0	1373.1	1418.0	1459.3	1489.3	1429.2	1368.5	1550.0	1886.4	1839.5	1334.4
55°	1293.1	1297.7	1372.6	1454.2	1592.3	1612.7	1511.8	1671.8	2007.2	1975.1	1405.2
57.5°	1090.2	1109.6	1216.1	1341.0	1566.8	1721.8	1715.1	1813.5	2085.7	2070.9	1496.5
60°	716.1	737.5	865.0	1054.1	1379.2	1692.7	1938.4	2026.1	2195.8	2212.1	1656.5
62.5°	371.1	396.0	508.2	675.9	999.5	1474.1	2014.3	2375.2	2406.8	2462.4	1942.0
65°	212.0	217.1	273.2	396.0	618.8	1055.6	1923.1	2720.8	2684.6	2797.2	2306.4
67°	157.5	157.5	196.7	269.1	392.0	717.7	1640.2	2793.7	2859.4	2919.1	2379.8
67.5°	141.2	148.8	182.5	248.2	351.7	636.6	1534.7	2774.3	2870.6	2907.8	2354.3
70°	96.8	101.9	131.0	177.9	237.0	331.3	1006.1	2453.7	2765.6	2727.9	2133.6
72.5°	58.1	60.1	86.6	127.9	176.9	177.4	548.9	1862.4	2343.6	2343.1	1742.7
75°	36.2	38.2	51.0	85.6	123.9	111.1	253.8	1267.1	1683.0	1650.4	1167.7
77.5°	20.4	23.4	30.6	46.9	78.5	70.8	107.0	710.0	909.3	853.2	580.0
80°	8.2	9.7	17.3	22.4	44.3	42.3	43.8	249.8	368.0	331.8	194.2
82.5°	2.0	2.5	6.1	10.7	17.3	17.3	13.8	68.3	87.2	81.0	50.0
85°	0.0	0.0	0.5	0.5	0.5	1.0	3.6	7.6	9.2	10.7	8.2
87.5°	0.0	0.0	0.0	0.5	0.5	0.5	1.0	1.5	1.5	1.5	1.5
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°	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0	315.0
2.5°	317.0	313.5	306.3	298.7	291.0	284.9	279.8	272.7	271.7	271.7	271.7
5°	323.7	315.5	299.2	282.9	266.6	251.8	241.1	232.4	224.8	222.2	224.3
7.5°	333.3	318.6	290.0	261.5	236.0	215.1	199.8	187.6	182.0	178.9	176.4
10°	346.1	323.1	277.8	236.0	203.9	178.9	162.6	150.9	145.3	141.7	142.2
12.5°	359.8	326.7	262.5	208.5	172.8	149.9	136.1	126.4	117.2	111.6	113.2
15°	373.6	329.3	243.6	183.0	148.8	128.4	109.1	91.7	85.6	84.6	84.1
17.5°	388.9	328.8	222.7	159.0	128.4	99.9	80.5	78.5	78.0	78.0	77.5
20°	404.7	326.2	198.8	139.1	108.1	75.9	72.9	71.9	70.3	69.8	69.3
22.5°	422.0	321.6	176.9	121.8	80.5	69.3	65.2	62.2	59.6	58.1	58.6
25°	437.8	313.0	155.5	105.5	68.8	62.2	56.6	52.0	49.4	47.4	47.9
27.5°	448.5	297.7	137.1	85.1	63.2	55.0	48.4	43.8	40.3	38.7	38.7
30°	449.6	275.7	120.8	69.8	57.6	48.4	41.3	36.2	34.1	33.1	32.6
32.5°	448.5	253.3	108.6	64.2	52.5	42.3	35.2	31.6	29.6	28.5	28.5
35°	453.6	230.4	97.4	59.1	46.9	37.2	31.1	27.5	26.0	25.0	25.0
37.5°	468.9	214.6	85.6	54.0	41.8	32.6	28.0	25.0	23.4	22.4	22.4
40°	489.8	201.3	71.4	48.9	36.7	29.6	25.5	22.9	20.9	19.9	19.9
42.5°	526.5	196.2	59.6	43.8	32.1	26.5	23.4	20.4	18.3	17.3	17.3
45°	581.1	198.8	54.5	39.2	29.1	24.0	20.9	17.8	15.8	15.3	15.3
47.5°	641.2	209.5	51.0	35.2	26.5	22.4	18.9	15.8	13.8	13.3	13.3
50°	708.5	226.3	47.9	31.1	24.0	20.4	16.8	13.8	12.2	11.7	11.7
52.5°	772.7	247.7	44.9	28.0	22.4	18.3	14.8	12.2	11.2	10.7	10.7
55°	821.6	261.5	42.3	26.0	20.9	16.8	13.3	11.7	10.2	9.7	9.7
57.5°	889.9	284.4	39.2	23.4	18.9	15.3	12.2	10.7	9.2	9.2	9.2
60°	1028.6	346.1	34.7	21.4	16.8	13.8	11.7	9.7	8.7	8.2	8.2
62.5°	1278.3	448.0	30.1	19.9	14.8	12.2	10.2	8.7	7.6	6.6	6.6
65°	1518.9	490.3	25.5	17.3	13.3	10.7	9.2	7.6	5.6	4.6	4.6
67°	1505.7	419.5	21.4	14.8	11.2	9.7	7.6	6.1	4.1	2.5	2.5
67.5°	1470.0	390.4	20.9	14.3	10.7	9.2	7.6	5.6	3.6	2.0	2.0
70°	1249.3	273.2	16.3	11.2	9.2	8.2	6.1	4.1	2.0	1.0	1.0
72.5°	1014.8	216.6	12.7	9.2	7.6	6.1	5.1	2.5	1.5	0.5	0.5
75°	717.7	133.0	11.2	8.2	6.1	4.6	4.1	2.5	1.5	1.0	0.5
77.5°	354.2	61.2	9.2	7.1	5.6	4.6	3.6	3.1	2.5	2.0	1.0
80°	104.0	19.9	6.1	5.1	5.1	4.6	4.1	3.6	3.1	2.5	1.5
82.5°	23.4	7.1	2.0	2.5	3.6	3.6	3.6	2.5	2.0	1.0	0.5
85°	3.1	1.5	1.5	1.5	2.0	2.0	1.5	1.0	1.0	0.0	0.0
87.5°	1.0	1.0	1.0	1.5	1.5	1.5	1.0	0.5	0.5	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

(END OF REPORT)