

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: P401394

Luminaire Tested: **ENT-SA1C-827-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401394
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-827-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3316 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - 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

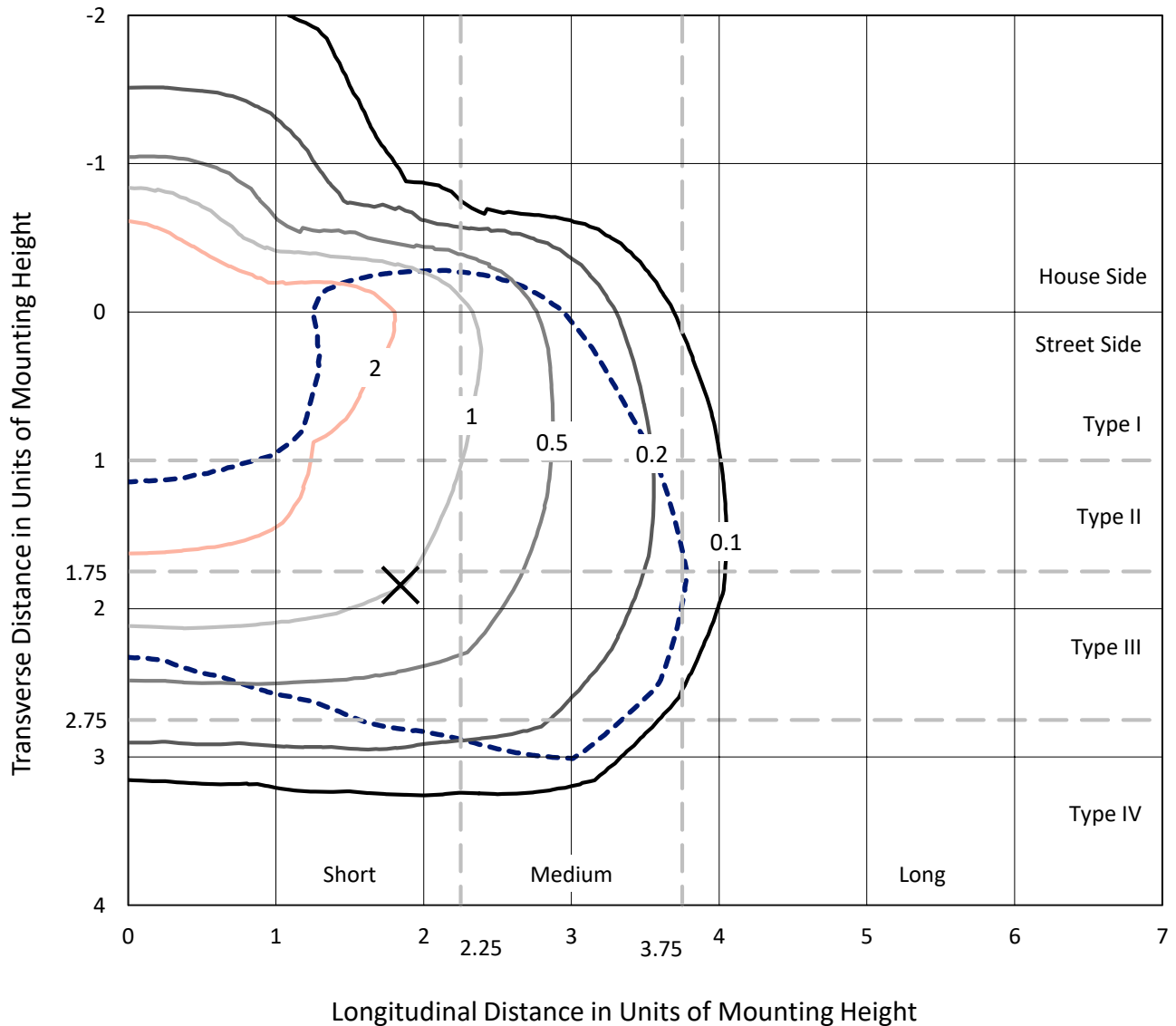


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

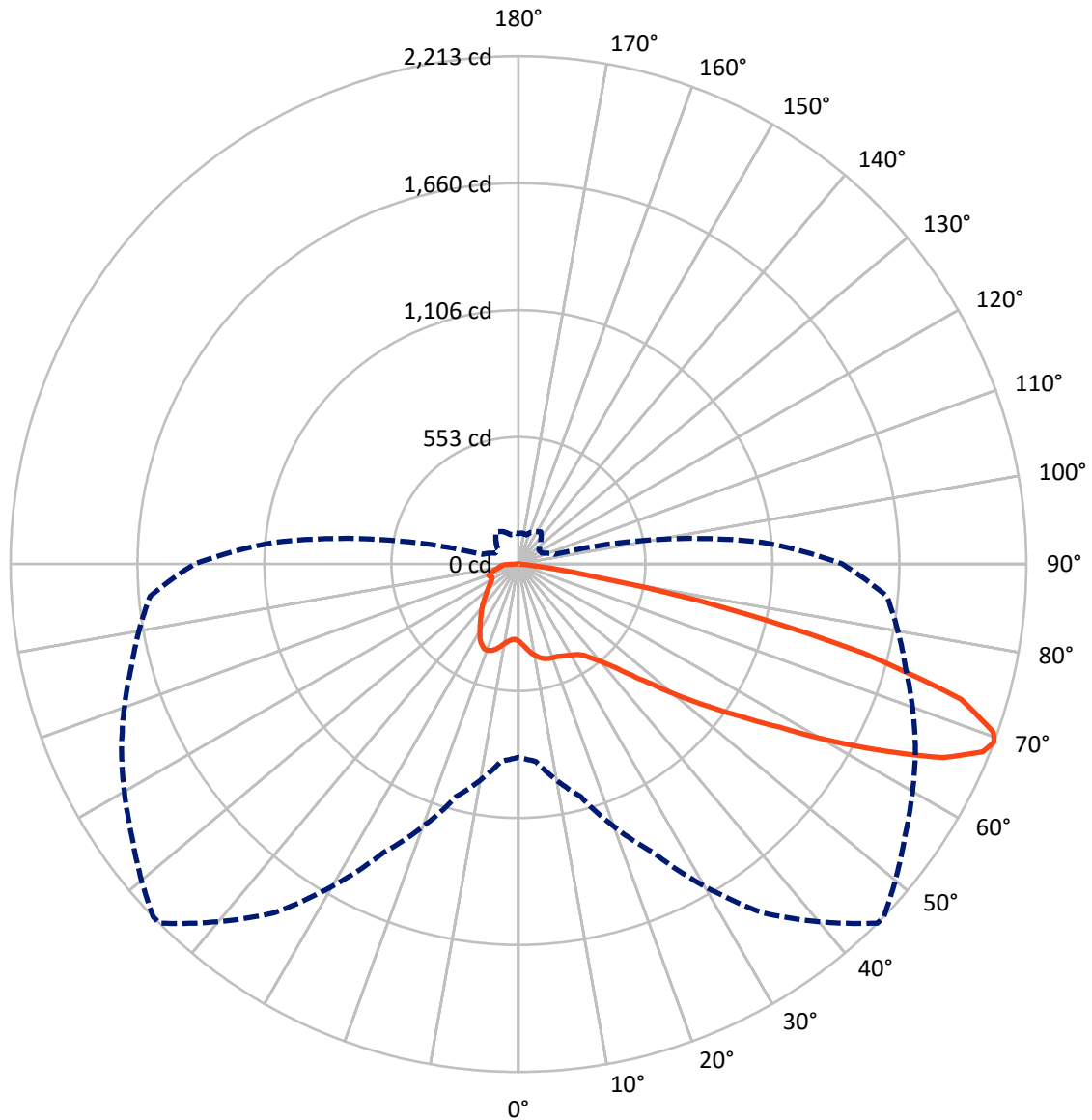


Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	780.7	0.0	780.7
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	2535.3	0.0	2535.3
	% Fixture	76.5	0.0	76.5
Total	Lumens	3316.0	0.0	3316.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.3	1.0
10°-20°	113.6	3.4
20°-30°	192.0	5.8
30°-40°	277.9	8.4
40°-50°	419.5	12.7
50°-60°	707.4	21.3
60°-70°	973.2	29.3
70°-80°	539.3	16.3
80°-90°	58.7	1.8
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°	3316.0	100.0
0°-180°	3316.0	100.0



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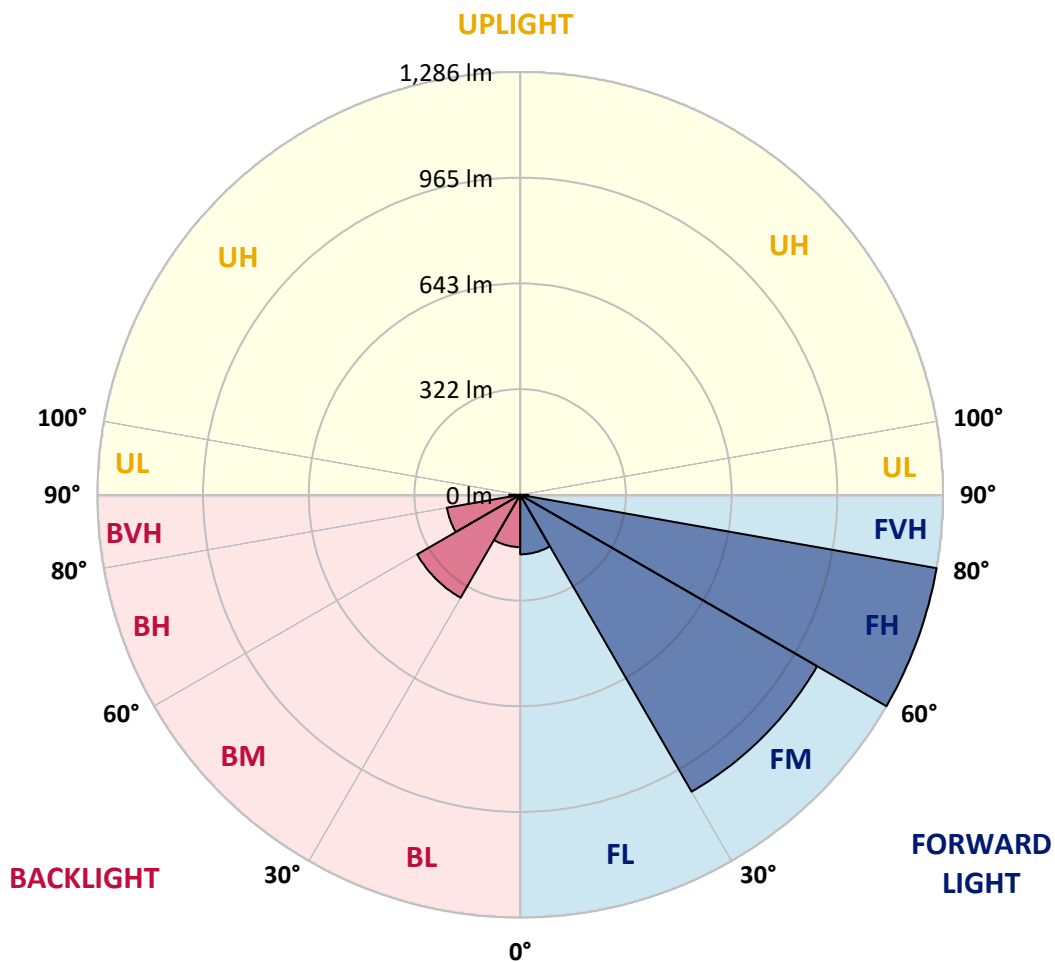
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	181.0	5.5			
FM	(30°-60°)	1042.9	31.5			
FH	(60°-80°)	1286.2	38.8			G1/1800
FVH	(80°-90°)	25.1	0.8			G1/100
BL	(0°-30°)	159.0	4.8	B1/500		
BM	(30°-60°)	361.9	10.9	B1/1000		
BH	(60°-80°)	226.3	6.8	B1/500		G1/500
BVH	(80°-90°)	33.6	1.0			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°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6
2.5°	357.8	357.3	357.8	355.9	354.0	351.2	350.3	347.0	344.6	341.3	338.5
5°	384.2	385.6	385.1	382.8	375.2	369.6	369.6	362.5	355.0	347.9	341.3
7.5°	412.9	412.9	410.1	405.4	397.9	389.4	388.4	379.0	368.2	358.3	347.9
10°	433.7	434.6	430.4	423.8	414.4	405.4	404.5	393.6	383.3	370.5	357.8
12.5°	448.3	448.3	444.5	438.4	427.1	418.6	417.7	407.8	396.9	383.7	369.1
15°	455.8	454.9	451.6	445.0	435.1	428.0	426.6	418.1	409.2	396.0	380.4
17.5°	454.4	454.4	451.6	445.0	437.9	432.3	431.3	425.2	418.6	405.9	390.3
20°	448.3	447.8	446.9	441.7	437.0	434.6	433.7	430.9	426.6	415.8	401.2
22.5°	442.6	442.2	440.8	437.5	435.6	437.0	437.0	436.5	436.0	427.6	413.4
25°	445.9	445.5	442.6	437.9	437.5	444.1	444.5	445.9	446.9	439.8	425.2
27.5°	469.0	467.6	459.6	447.4	443.1	451.6	452.5	456.8	455.8	448.3	435.6
30°	514.3	514.8	496.9	470.5	456.3	460.1	460.6	465.3	463.9	457.7	447.4
32.5°	582.7	582.7	553.4	513.4	477.5	470.0	468.6	472.8	478.5	470.5	460.1
35°	669.4	667.0	631.7	569.9	513.8	487.0	486.0	484.1	494.0	486.5	471.4
37.5°	756.6	748.1	713.7	645.8	564.7	520.0	516.2	510.5	516.2	500.2	487.0
40°	826.8	825.4	797.1	728.3	625.1	560.0	557.2	532.2	536.0	523.3	518.1
42.5°	904.2	905.1	886.2	816.9	697.2	614.2	606.7	568.0	578.9	574.2	571.8
45°	989.0	988.1	973.9	901.3	785.4	689.7	680.2	632.6	654.8	652.0	665.1
47.5°	1054.1	1059.2	1051.2	999.8	890.0	781.1	774.0	716.1	749.5	772.2	797.1
50°	1142.7	1142.2	1120.5	1099.3	1011.6	898.0	891.0	826.4	874.5	907.5	953.2
52.5°	1252.5	1248.7	1204.0	1196.4	1159.7	1025.8	1019.6	952.2	1021.1	1049.8	1142.7
55°	1321.3	1320.9	1297.8	1311.0	1311.9	1168.1	1160.6	1100.7	1178.5	1211.5	1352.0
57.5°	1378.9	1379.3	1398.7	1444.9	1476.0	1341.1	1338.3	1265.2	1344.0	1390.2	1556.1
60°	1423.2	1432.6	1486.8	1592.4	1644.3	1561.8	1549.5	1472.2	1525.0	1543.4	1712.1
62.5°	1405.3	1417.5	1524.0	1679.6	1813.0	1795.6	1791.3	1679.6	1679.1	1669.7	1828.6
65°	1263.8	1290.2	1458.0	1676.3	1924.3	2033.2	2027.0	1875.2	1822.4	1775.3	1863.5
67.5°	1034.3	1039.9	1242.1	1548.1	1923.3	2182.6	2176.0	2017.6	1911.5	1796.0	1761.2
69°	841.9	862.7	1049.8	1385.9	1855.4	2212.8	2212.8	2057.2	1908.2	1746.5	1611.3
70°	728.3	729.3	909.8	1256.8	1763.0	2194.9	2199.1	2057.2	1881.4	1682.0	1478.3
72.5°	341.3	362.5	476.6	820.2	1424.1	2017.6	2028.0	1921.4	1725.3	1449.1	1109.2
75°	102.3	106.1	158.9	388.9	816.0	1554.2	1577.3	1598.5	1405.3	1066.8	683.1
77.5°	60.8	60.3	76.8	132.0	377.6	921.6	932.0	1022.5	911.7	593.0	310.2
80°	29.7	30.6	41.0	64.1	141.4	334.7	368.2	478.0	404.0	231.9	113.6
82.5°	9.9	10.8	17.0	25.9	59.9	108.0	119.3	149.9	129.2	84.4	48.6
85°	0.0	0.0	0.5	0.9	3.3	8.0	8.0	17.9	26.9	29.7	16.0
87.5°	0.0	0.0	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	1.4
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°	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6
2.5°	337.1	336.1	334.2	332.3	331.4	329.0	329.5	328.6	328.1	328.1	328.6
5°	338.0	336.6	333.8	331.9	330.0	329.0	331.4	332.3	333.3	333.3	333.8
7.5°	343.7	340.8	337.5	335.2	335.6	337.1	340.8	343.7	345.1	346.0	347.0
10°	353.1	349.8	345.1	344.6	345.5	349.3	354.5	358.7	362.5	364.9	364.9
12.5°	363.0	358.7	355.0	355.9	360.2	365.8	371.0	375.7	379.0	381.4	381.8
15°	373.8	369.6	365.8	368.2	375.2	381.8	386.6	388.4	389.9	392.2	392.7
17.5°	383.7	380.0	376.7	382.8	388.9	394.1	395.5	394.6	392.7	394.1	395.0
20°	394.1	390.8	388.9	395.5	399.7	400.2	396.4	392.2	387.5	387.5	388.0
22.5°	406.8	402.6	401.6	404.9	403.5	397.9	388.4	381.8	375.2	374.3	375.7
25°	419.1	414.8	414.4	412.0	399.7	385.1	372.4	364.9	359.7	360.2	363.0
27.5°	431.3	428.5	429.0	416.2	388.9	366.8	349.8	343.7	345.1	346.0	348.8
30°	443.6	443.6	445.5	416.2	373.8	340.8	324.8	324.3	328.1	330.9	334.2
32.5°	457.7	462.0	458.7	411.1	353.6	314.4	301.7	302.6	306.9	311.6	314.4
35°	471.4	481.3	471.9	399.3	325.7	290.4	280.0	278.6	281.9	286.1	287.6
37.5°	493.1	509.1	483.2	380.9	297.0	269.2	258.8	255.0	251.7	255.0	254.6
40°	530.8	550.1	491.7	350.3	269.2	249.4	238.5	231.5	223.4	216.4	216.4
42.5°	591.1	603.9	496.4	313.0	241.4	229.6	218.7	208.4	196.1	183.4	183.4
45°	689.7	692.5	498.3	273.4	215.9	209.8	198.5	188.6	172.5	159.8	157.0
47.5°	821.2	808.9	503.0	235.2	193.7	192.3	182.9	171.6	154.1	142.4	140.9
50°	998.0	945.2	523.7	204.6	175.8	177.2	170.2	157.0	140.5	132.0	130.1
52.5°	1196.9	1117.2	539.8	180.1	160.3	164.5	159.3	146.6	132.5	125.4	124.0
55°	1414.2	1282.7	536.0	163.6	148.5	153.2	151.3	140.5	127.8	121.6	120.2
57.5°	1591.5	1399.1	503.0	149.0	136.7	143.3	145.2	136.7	124.9	119.3	117.9
60°	1724.4	1462.8	435.1	136.7	127.3	135.3	140.5	134.3	124.5	121.2	119.7
62.5°	1784.7	1457.1	347.0	127.3	120.2	129.6	140.9	138.1	131.5	133.9	134.3
65°	1750.8	1385.9	260.2	120.2	116.0	130.6	149.0	149.0	139.1	143.3	143.8
67.5°	1576.8	1199.7	189.5	115.0	111.7	135.3	164.0	154.6	135.8	139.1	137.6
69°	1411.4	1073.4	162.6	112.2	108.4	137.6	170.6	155.6	132.0	135.8	132.0
70°	1289.8	959.3	146.1	109.8	107.0	137.6	172.5	154.6	130.1	132.9	128.7
72.5°	917.8	666.1	120.2	105.1	101.8	127.3	169.2	149.4	124.9	121.6	113.6
75°	533.6	368.2	102.3	99.9	90.0	111.7	160.7	143.8	119.7	113.6	108.0
77.5°	223.9	164.5	87.2	91.0	79.7	99.5	150.4	138.1	113.6	105.1	102.3
80°	91.0	82.0	72.6	78.7	69.3	87.7	138.6	128.7	104.7	96.2	91.9
82.5°	47.6	45.3	55.6	63.6	57.5	80.6	130.6	122.1	97.1	88.6	83.4
85°	14.1	18.9	31.6	43.4	43.8	72.6	126.8	113.1	84.4	73.1	72.1
87.5°	0.9	3.8	10.8	22.6	28.8	55.6	102.8	92.9	68.4	57.5	58.0
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)