

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: P140290

Luminaire Tested: **ECM-E04-LED-E1-5MQ**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140290
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33686)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E04-LED-E1-5MQ
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12215.1 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 97.2
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

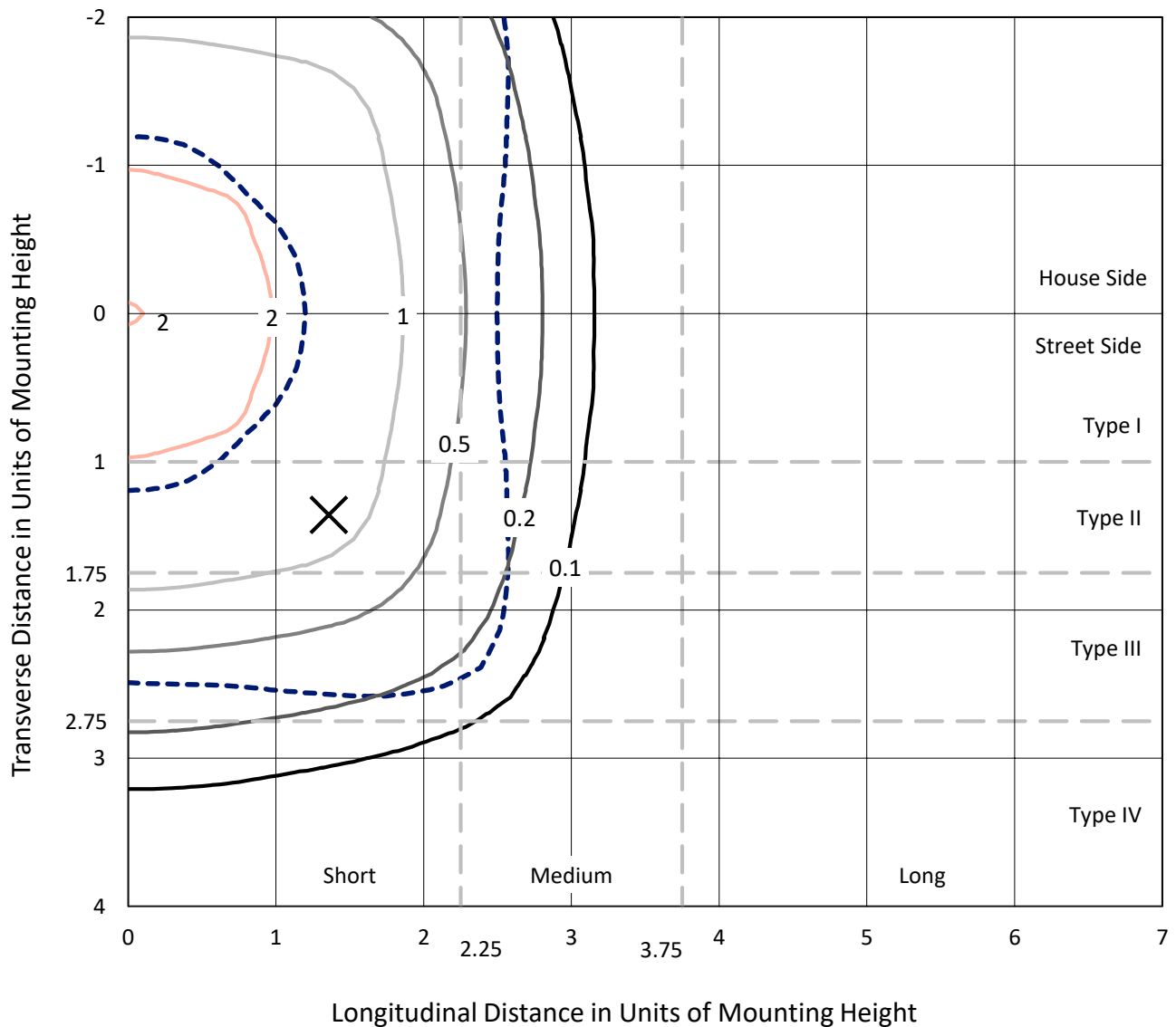


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Iso-Footcandle Lines of Horizontal Illumination

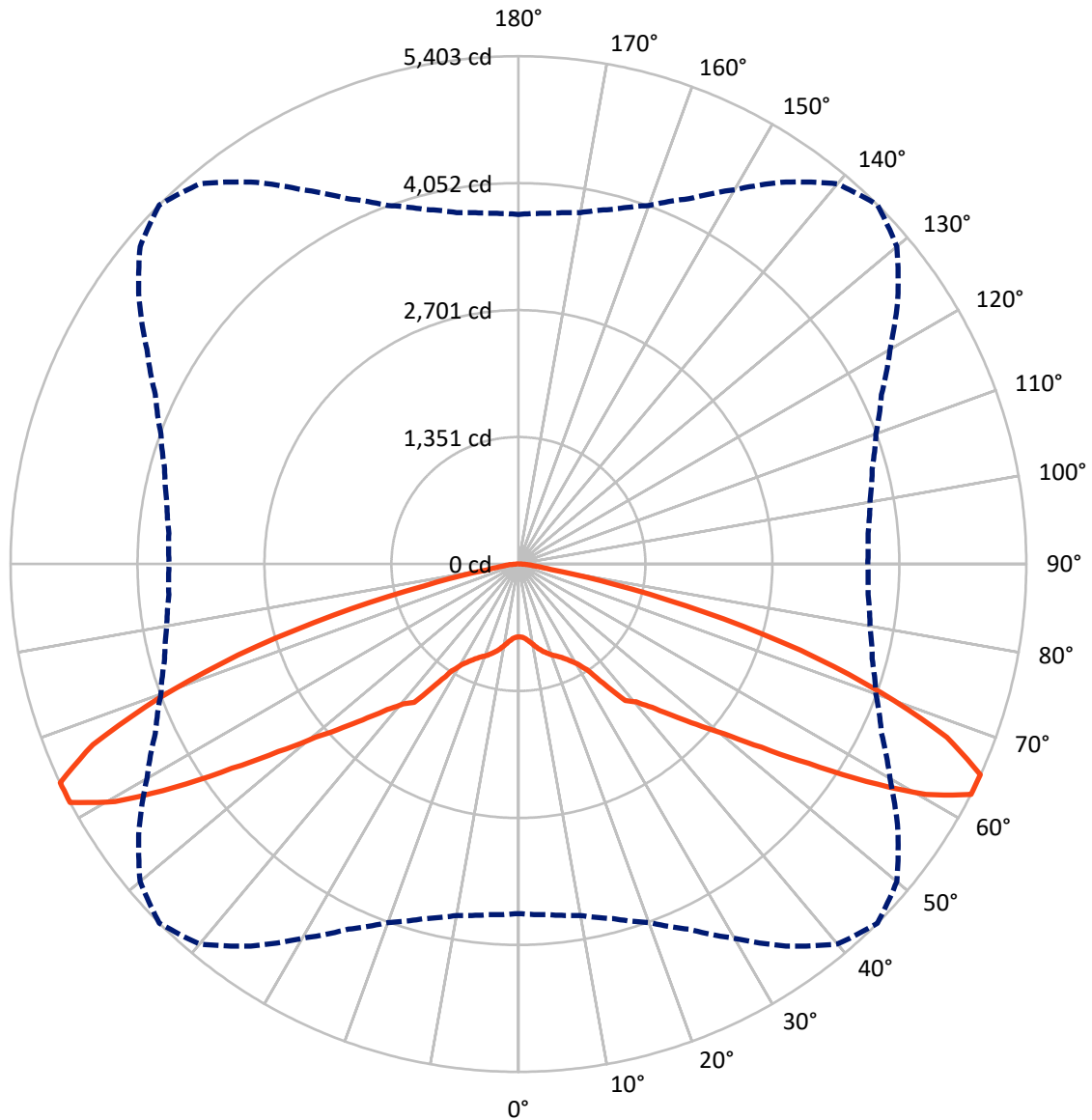
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.2 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6107.5	0.0	6107.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6107.5	0.0	6107.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	12215.1	0.0	12215.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	0.6
10°-20°	274.4	2.2
20°-30°	527.3	4.3
30°-40°	1014.3	8.3
40°-50°	1765.3	14.5
50°-60°	3170.7	26.0
60°-70°	3886.8	31.8
70°-80°	1370.7	11.2
80°-90°	126.7	1.0
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°	12215.1	100.0
0°-180°	12215.1	100.0



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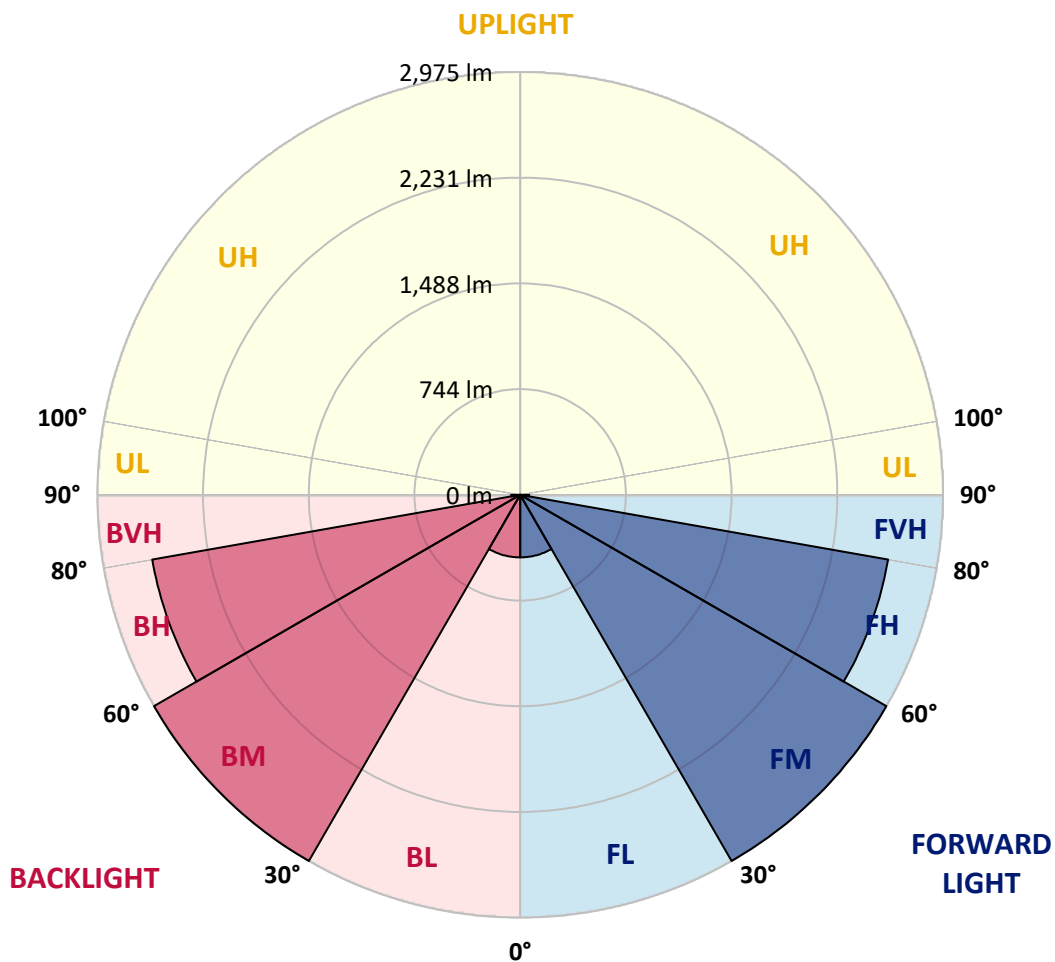
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	440.2	3.6			
FM	(30°-60°)	2975.1	24.4			
FH	(60°-80°)	2628.8	21.5			G2/5000
FVH	(80°-90°)	63.4	0.5			G1/100
BL	(0°-30°)	440.2	3.6	B1/500		
BM	(30°-60°)	2975.1	24.4	B3/5000		
BH	(60°-80°)	2628.8	21.5	B4/5000		G2/5000
BVH	(80°-90°)	63.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7
2.5°	784.0	784.0	782.7	781.3	781.3	781.3	780.0	780.0	781.3	778.7	778.7
5°	804.0	805.3	804.0	802.7	801.3	801.3	800.0	800.0	801.3	798.7	797.3
7.5°	841.3	842.7	840.0	838.7	837.3	836.0	834.7	833.3	834.7	830.7	830.7
10°	889.3	889.3	889.3	884.0	884.0	880.0	878.7	876.0	877.3	873.3	873.3
12.5°	937.3	937.3	936.0	933.3	932.0	929.3	926.7	926.7	924.0	918.7	916.0
15°	980.0	981.3	980.0	976.0	974.7	970.7	970.7	968.0	964.0	961.3	958.7
17.5°	1020.0	1021.3	1017.3	1016.0	1012.0	1009.3	1006.7	1005.3	1002.7	998.7	997.3
20°	1058.7	1057.3	1053.3	1048.0	1045.3	1042.7	1040.0	1038.7	1037.3	1034.7	1034.7
22.5°	1096.0	1096.0	1092.0	1084.0	1078.7	1076.0	1072.0	1069.3	1066.7	1065.3	1068.0
25°	1152.0	1150.7	1142.7	1134.7	1125.3	1117.3	1112.0	1110.7	1108.0	1108.0	1109.3
27.5°	1224.0	1221.3	1209.3	1198.7	1188.0	1177.3	1170.7	1165.3	1164.0	1162.7	1162.7
30°	1314.7	1310.7	1300.0	1286.7	1274.7	1261.3	1248.0	1244.0	1237.3	1232.0	1241.3
32.5°	1488.0	1490.7	1469.3	1442.7	1416.0	1390.7	1368.0	1350.7	1340.0	1341.3	1341.3
35°	1678.7	1680.0	1670.7	1660.0	1652.0	1637.3	1612.0	1590.7	1574.7	1557.3	1565.3
37.5°	1761.3	1762.7	1754.7	1753.3	1758.7	1768.0	1793.3	1812.0	1840.0	1844.0	1836.0
40°	1906.7	1900.0	1889.3	1886.7	1882.7	1896.0	1906.7	1916.0	1920.0	1928.0	1920.0
42.5°	2058.7	2056.0	2048.0	2038.7	2038.7	2041.3	2058.7	2073.3	2082.7	2084.0	2082.7
45°	2229.3	2225.3	2218.7	2217.3	2221.3	2233.3	2245.3	2264.0	2293.3	2294.7	2293.3
47.5°	2417.3	2420.0	2409.3	2413.3	2420.0	2440.0	2473.3	2504.0	2536.0	2548.0	2533.3
50°	2674.7	2665.3	2665.3	2661.3	2678.7	2708.0	2748.0	2784.0	2829.3	2840.0	2817.3
52.5°	3024.0	3004.0	3008.0	2997.3	3006.7	3033.3	3098.7	3154.7	3212.0	3240.0	3196.0
55°	3444.0	3410.7	3414.7	3425.3	3433.3	3478.7	3561.3	3625.3	3733.3	3742.7	3692.0
57.5°	3788.0	3778.7	3784.0	3809.3	3860.0	3938.7	4042.7	4197.3	4330.7	4362.7	4308.0
60°	3913.3	3920.0	3957.3	4024.0	4120.0	4260.0	4462.7	4704.0	4916.0	4980.0	4897.3
62.5°	3718.7	3745.3	3796.0	3906.7	4058.7	4286.7	4597.3	4961.3	5278.7	5402.7	5254.7
65°	3338.7	3356.0	3438.7	3533.3	3729.3	3990.7	4372.0	4845.3	5236.0	5400.0	5234.7
67.5°	2840.0	2873.3	2945.3	3062.7	3232.0	3497.3	3897.3	4381.3	4773.3	4917.3	4772.0
70°	2280.0	2294.7	2340.0	2432.0	2608.0	2842.7	3185.3	3618.7	4000.0	4090.7	3974.7
72.5°	1581.3	1610.7	1649.3	1733.3	1844.0	2042.7	2325.3	2644.0	2950.7	3138.7	2968.0
75°	681.3	642.7	728.0	812.0	948.0	1132.0	1353.3	1614.7	1918.7	2044.0	1876.0
77.5°	204.0	202.7	216.0	240.0	288.0	381.3	534.7	710.7	945.3	1026.7	881.3
80°	166.7	172.0	177.3	182.7	188.0	194.7	206.7	241.3	296.0	349.3	284.0
82.5°	141.3	148.0	162.7	170.7	174.7	176.0	176.0	174.7	168.0	165.3	164.0
85°	106.7	117.3	137.3	149.3	149.3	149.3	149.3	145.3	136.0	120.0	133.3
87.5°	36.0	48.0	80.0	85.3	88.0	81.3	85.3	86.7	72.0	54.7	69.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	774.7	774.7	774.7	774.7	774.7	774.7	774.7	774.7
2.5°	778.7	778.7	778.7	780.0	778.7	778.7	778.7	778.7
5°	798.7	797.3	798.7	797.3	798.7	798.7	797.3	798.7
7.5°	829.3	829.3	830.7	830.7	829.3	829.3	829.3	829.3
10°	870.7	868.0	869.3	869.3	869.3	868.0	868.0	866.7
12.5°	913.3	910.7	910.7	910.7	910.7	909.3	910.7	910.7
15°	953.3	950.7	948.0	948.0	949.3	950.7	950.7	949.3
17.5°	992.0	989.3	985.3	985.3	984.0	986.7	989.3	988.0
20°	1030.7	1029.3	1022.7	1022.7	1022.7	1025.3	1026.7	1030.7
22.5°	1069.3	1068.0	1062.7	1061.3	1062.7	1068.0	1072.0	1072.0
25°	1110.7	1113.3	1112.0	1112.0	1114.7	1122.7	1126.7	1132.0
27.5°	1169.3	1174.7	1176.0	1181.3	1182.7	1192.0	1198.7	1206.7
30°	1245.3	1254.7	1260.0	1269.3	1276.0	1281.3	1290.7	1297.3
32.5°	1350.7	1373.3	1400.0	1430.7	1444.0	1468.0	1478.7	1481.3
35°	1593.3	1617.3	1640.0	1653.3	1648.0	1654.7	1654.7	1660.0
37.5°	1812.0	1788.0	1768.0	1764.0	1753.3	1749.3	1750.7	1754.7
40°	1913.3	1901.3	1893.3	1897.3	1892.0	1888.0	1890.7	1892.0
42.5°	2077.3	2058.7	2052.0	2050.7	2048.0	2050.7	2057.3	2054.7
45°	2269.3	2245.3	2236.0	2234.7	2230.7	2229.3	2232.0	2237.3
47.5°	2500.0	2470.7	2441.3	2432.0	2432.0	2424.0	2429.3	2421.3
50°	2782.7	2734.7	2704.0	2686.7	2676.0	2664.0	2674.7	2657.3
52.5°	3154.7	3086.7	3053.3	3030.7	3000.0	3001.3	3004.0	2997.3
55°	3624.0	3549.3	3484.0	3440.0	3421.3	3410.7	3408.0	3429.3
57.5°	4164.0	4032.0	3928.0	3850.7	3821.3	3781.3	3762.7	3762.7
60°	4677.3	4437.3	4230.7	4101.3	4005.3	3937.3	3892.0	3878.7
62.5°	4928.0	4564.0	4261.3	4048.0	3896.0	3798.7	3733.3	3716.0
65°	4820.0	4357.3	4001.3	3761.3	3585.3	3460.0	3384.0	3362.7
67.5°	4385.3	3901.3	3526.7	3285.3	3096.0	2960.0	2902.7	2878.7
70°	3641.3	3197.3	2872.0	2636.0	2438.7	2324.0	2245.3	2213.3
72.5°	2617.3	2280.0	1981.3	1778.7	1601.3	1541.3	1434.7	1424.0
75°	1546.7	1253.3	1006.7	852.0	693.3	606.7	557.3	504.0
77.5°	629.3	449.3	337.3	254.7	218.7	198.7	189.3	186.7
80°	214.7	192.0	181.3	177.3	172.0	169.3	162.7	157.3
82.5°	169.3	168.0	162.7	161.3	156.0	148.0	134.7	126.7
85°	141.3	138.7	132.0	130.7	126.7	116.0	101.3	92.0
87.5°	80.0	73.3	66.7	68.0	64.0	56.0	41.3	29.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)