

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: LUMARK

Report Number: P196957

Luminaire Tested: **NAV-AF-01-D-UNV-AFL-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196957
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-AFL-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4184 lumens
Efficiency: N/A
Efficacy: 70.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G0

Input Watts (W): 59
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

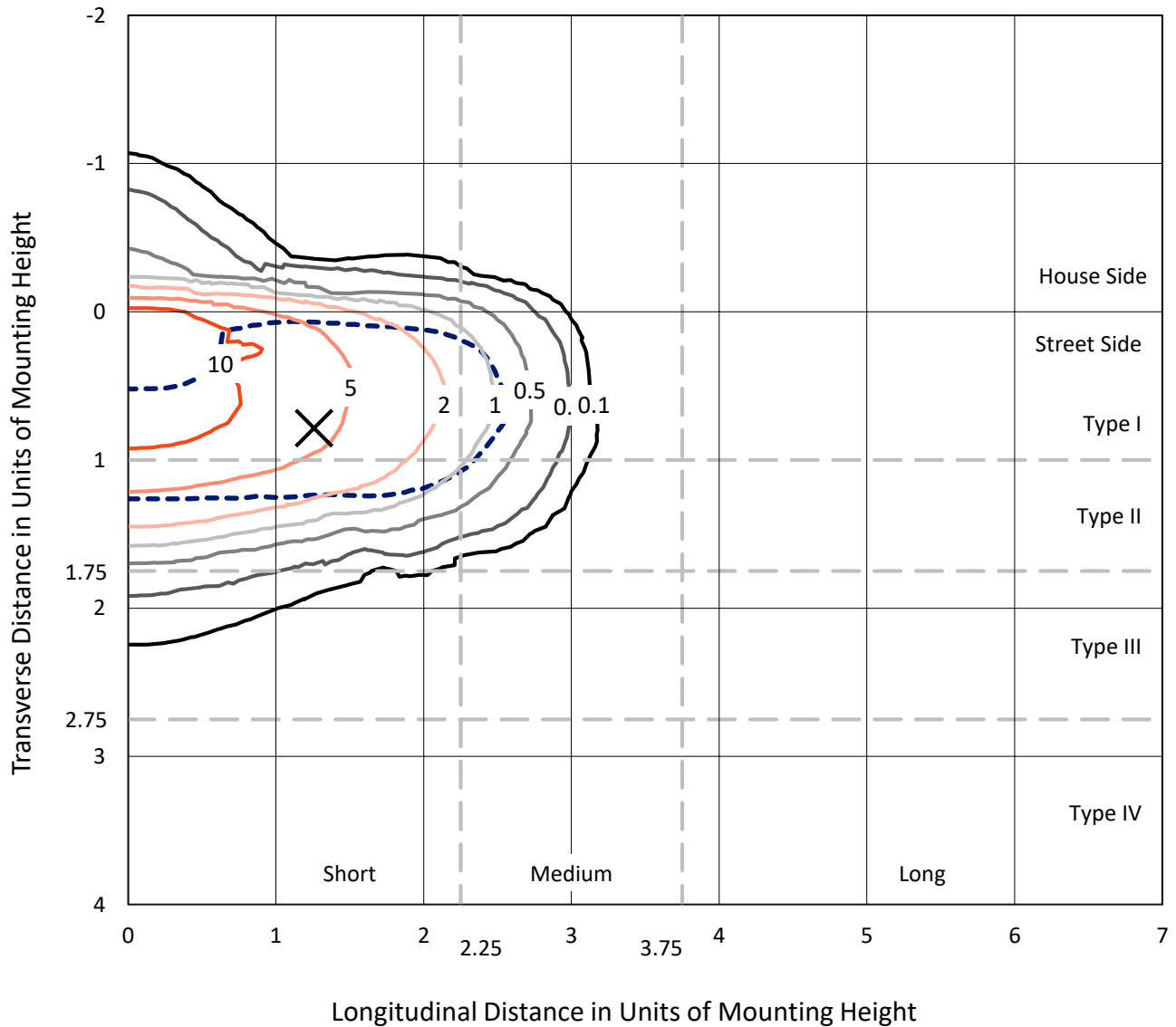


REPORT NUMBER: P196957

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-8030-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

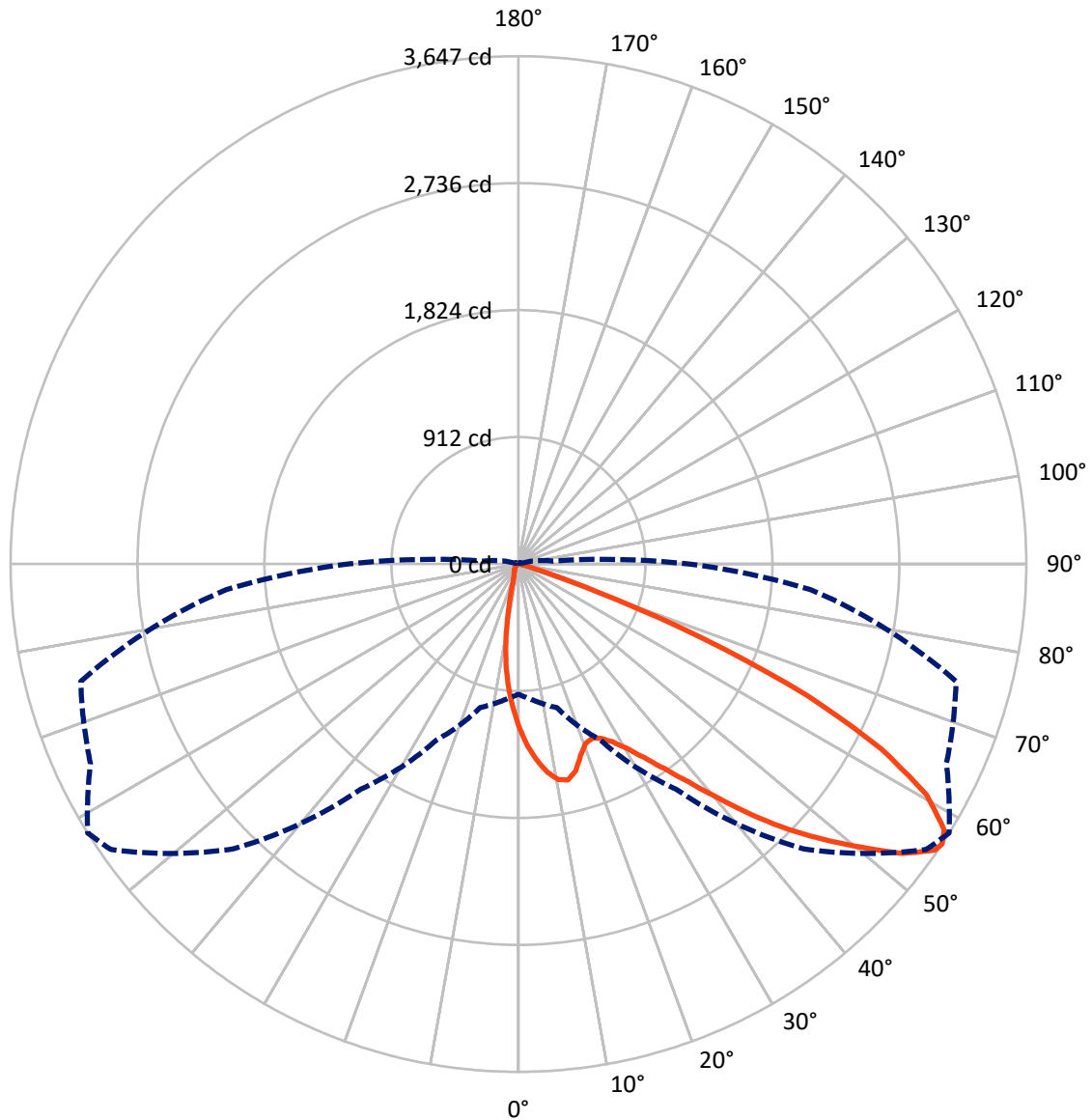


Based on 10 foot mounting height. Maximum calculated value = 14.7 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P196957

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-8030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

REPORT NUMBER: P196957

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-8030-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	261.2	0.0	261.2
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	3922.8	0.0	3922.8
	% Fixture	93.8	0.0	93.8
Total	Lumens	4184.0	0.0	4184.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.1	2.4
10°-20°	235.1	5.6
20°-30°	395.7	9.5
30°-40°	677.5	16.2
40°-50°	1022.4	24.4
50°-60°	1062.8	25.4
60°-70°	596.6	14.3
70°-80°	81.8	2.0
80°-90°	11.1	0.3
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°	4184.0	100.0
0°-180°	4184.0	100.0

Coefficient of Utilization



REPORT NUMBER: P196957

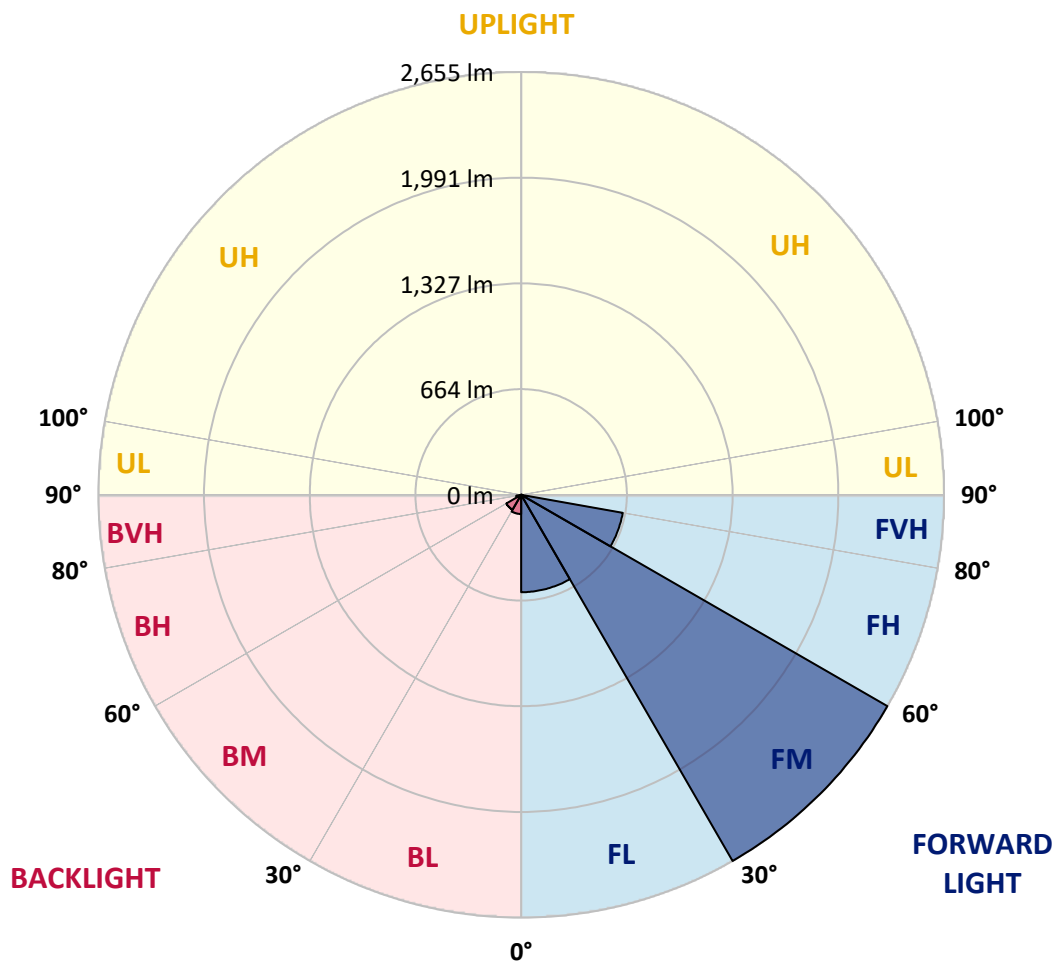
CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-8030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	611.4	14.6			
FM	(30°-60°)	2654.5	63.4			
FH	(60°-80°)	647.4	15.5			G0/660
FVH	(80°-90°)	9.5	0.2			G0/10
BL	(0°-30°)	120.5	2.9	B1/500		
BM	(30°-60°)	108.2	2.6	B0/220		
BH	(60°-80°)	31.0	0.7	B0/110		G0/110
BVH	(80°-90°)	1.5	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-G0

Type II Short





REPORT NUMBER: P196957

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-8030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6
2.5°	1425.3	1416.7	1407.8	1391.2	1375.8	1352.2	1319.6	1311.7	1286.1	1244.0	1204.7
5°	1548.2	1546.6	1540.5	1527.1	1510.5	1481.8	1445.1	1420.5	1380.9	1314.5	1238.9
7.5°	1475.4	1488.8	1510.9	1542.1	1563.2	1560.3	1532.2	1510.9	1471.6	1380.9	1272.4
10°	1243.7	1246.2	1276.6	1342.3	1446.4	1543.4	1580.1	1574.4	1538.3	1439.0	1301.8
12.5°	1162.0	1163.5	1170.6	1191.6	1259.3	1394.7	1561.0	1591.0	1588.1	1494.6	1333.1
15°	1168.3	1169.3	1171.2	1177.9	1197.1	1265.1	1463.9	1540.2	1620.0	1547.2	1363.7
17.5°	1218.8	1218.1	1212.1	1205.7	1211.8	1234.1	1365.0	1445.4	1613.3	1591.6	1388.9
20°	1317.1	1320.3	1299.9	1271.4	1256.8	1257.7	1316.1	1376.5	1575.7	1626.1	1407.8
22.5°	1455.3	1457.5	1424.0	1374.9	1331.8	1310.1	1326.3	1358.3	1532.2	1658.0	1423.1
25°	1620.3	1620.3	1573.4	1503.5	1436.8	1389.2	1375.2	1387.3	1515.6	1694.1	1438.4
27.5°	1798.5	1804.9	1743.6	1652.0	1563.8	1494.3	1450.2	1448.0	1528.4	1739.4	1455.6
30°	1992.2	1998.0	1925.2	1813.2	1708.8	1619.7	1552.0	1537.4	1577.3	1800.4	1480.9
32.5°	2185.0	2189.8	2109.4	1995.1	1873.5	1768.8	1679.7	1656.4	1665.0	1889.4	1517.9
35°	2430.2	2431.2	2329.3	2193.3	2063.4	1940.5	1827.8	1804.9	1795.3	2001.8	1571.2
37.5°	2625.2	2617.6	2553.1	2424.5	2275.4	2147.1	2014.6	1984.6	1961.6	2159.8	1653.9
40°	2671.2	2671.2	2661.6	2623.0	2504.6	2381.0	2252.7	2208.0	2157.3	2345.9	1765.0
42.5°	2551.5	2559.2	2622.4	2706.3	2707.3	2628.1	2502.7	2465.0	2375.6	2557.9	1886.3
45°	2283.7	2285.9	2437.5	2664.2	2818.1	2863.4	2770.8	2718.8	2594.9	2778.2	1997.3
47.5°	2187.3	2194.3	2258.8	2535.9	2826.4	3054.0	3028.1	2956.6	2797.9	2979.3	2101.1
50°	2039.2	2047.8	2126.6	2346.9	2751.7	3176.2	3274.2	3197.6	2982.8	3146.8	2152.5
52.5°	1684.8	1698.2	1809.6	2096.9	2564.9	3181.3	3499.6	3453.6	3172.1	3236.5	2146.4
55°	1159.4	1169.3	1299.2	1636.9	2188.2	3025.2	3596.6	3628.2	3340.9	3256.7	2117.1
56°	935.3	972.3	1067.5	1394.7	1973.7	2892.4	3574.3	3647.4	3391.0	3253.5	2104.3
57.5°	618.3	625.3	729.1	1010.6	1584.9	2604.2	3473.4	3606.5	3455.5	3237.2	2095.0
60°	290.8	294.0	331.3	466.4	857.7	1897.7	3145.6	3366.5	3479.2	3203.0	2094.7
62.5°	189.6	190.3	194.7	222.5	350.8	1033.6	2607.7	2925.6	3283.5	3199.2	2088.6
65°	156.1	157.7	152.3	155.8	183.6	389.8	1839.3	2280.8	2824.1	3109.2	2020.3
67.5°	137.6	137.9	130.6	126.4	134.4	171.1	926.7	1438.7	2112.3	2641.8	1664.1
70°	125.5	125.1	116.8	107.3	107.6	113.6	302.0	597.6	1168.7	1568.6	955.4
72.5°	111.4	112.0	107.3	93.9	89.4	80.4	113.6	161.2	397.7	503.7	251.9
75°	97.7	96.4	91.6	83.0	74.7	53.9	57.1	68.6	103.7	102.8	54.3
77.5°	74.1	72.8	75.0	70.9	58.4	37.7	31.3	35.8	46.9	43.7	22.0
80°	56.5	55.9	51.1	60.7	53.3	28.4	21.4	22.0	25.5	23.3	10.9
82.5°	40.9	40.5	38.6	37.3	33.8	20.7	16.3	17.2	19.2	16.3	8.0
85°	15.6	15.6	30.3	25.5	23.3	14.0	11.5	12.4	14.7	11.8	5.4
87.5°	2.6	2.6	20.4	16.9	10.5	7.0	7.3	8.0	8.6	7.0	4.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196957

CATALOG NUMBER: NAV-AF-01-D-UNV-AFL-8030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6	1184.6
2.5°	1181.4	1160.0	1113.1	1067.8	1028.2	984.8	962.8	937.2	927.6	908.5	910.4
5°	1193.6	1148.9	1054.7	955.4	864.4	771.9	706.1	644.2	609.7	575.5	575.5
7.5°	1206.0	1137.7	992.1	833.5	680.3	521.6	409.2	319.2	269.1	235.6	234.6
10°	1214.6	1123.3	920.9	692.1	466.1	268.8	162.2	127.7	115.2	109.8	109.5
12.5°	1225.8	1109.0	839.9	525.4	258.9	127.7	101.2	95.8	93.5	92.3	92.3
15°	1235.4	1088.5	741.5	353.4	136.0	95.8	87.1	85.2	84.9	84.6	84.9
17.5°	1237.6	1059.5	623.8	206.9	98.6	83.6	79.8	78.2	78.2	77.9	77.9
20°	1232.5	1021.2	493.5	127.7	85.2	76.9	72.8	70.9	70.5	70.5	70.5
22.5°	1222.0	972.3	364.9	96.7	77.6	70.9	65.4	63.5	63.5	63.8	64.2
25°	1208.9	914.6	250.6	83.3	71.8	64.5	59.1	57.1	57.8	58.4	58.7
27.5°	1192.3	845.6	164.1	72.1	64.2	58.1	53.3	52.0	53.3	54.6	55.2
30°	1175.7	770.0	111.1	62.6	55.5	51.1	48.2	47.9	49.8	52.7	53.0
32.5°	1164.8	692.4	84.0	56.2	48.8	45.0	43.7	44.4	47.2	50.4	51.1
35°	1163.9	616.7	71.5	51.1	44.4	40.9	40.2	42.1	45.3	47.9	48.5
37.5°	1178.9	545.9	64.8	47.2	40.9	37.3	36.4	39.9	42.8	45.3	46.0
40°	1209.2	482.3	60.3	43.7	38.0	33.8	33.2	36.1	38.9	41.8	42.8
42.5°	1247.2	423.0	55.2	40.2	34.8	30.0	29.4	31.6	34.5	38.6	39.3
45°	1280.1	367.7	49.8	36.4	31.3	25.9	25.5	28.1	30.3	34.2	34.8
47.5°	1307.8	321.8	44.7	32.2	26.8	23.0	22.7	23.9	25.2	28.7	29.4
50°	1293.2	282.8	39.6	26.5	21.7	19.8	19.5	19.5	21.1	24.6	25.2
52.5°	1257.1	258.6	34.8	22.0	17.9	16.9	16.0	16.3	17.9	19.5	19.8
55°	1228.0	247.1	30.6	19.5	15.0	14.0	13.1	12.8	13.1	12.4	11.8
56°	1221.0	245.8	29.7	18.8	14.4	13.1	11.8	11.2	10.9	9.6	9.3
57.5°	1217.8	245.8	28.1	17.6	13.4	11.8	10.2	8.9	7.7	6.7	6.7
60°	1215.3	247.4	26.2	15.3	11.5	9.6	7.3	5.4	4.5	4.5	4.5
62.5°	1209.8	246.8	23.9	12.8	9.9	7.3	4.5	3.5	3.2	3.5	3.8
65°	1148.9	229.2	21.1	10.2	7.7	5.1	2.6	2.6	2.9	3.5	3.8
67.5°	925.7	173.7	17.2	8.0	5.4	3.8	2.2	2.2	2.9	3.5	3.8
70°	508.5	91.6	14.7	5.7	4.1	3.2	2.2	1.9	2.9	3.5	3.8
72.5°	124.2	38.3	13.4	4.5	3.8	2.9	1.9	1.9	2.9	3.5	3.8
75°	30.6	28.7	10.9	3.5	3.2	2.6	1.9	1.9	2.9	3.5	3.8
77.5°	14.4	38.0	7.3	3.2	2.9	2.2	1.9	1.9	2.9	3.5	3.5
80°	8.6	28.7	4.5	2.9	2.6	2.2	1.9	1.9	2.9	3.5	3.8
82.5°	5.1	8.3	3.2	2.9	2.6	1.9	1.9	1.9	2.9	3.5	3.8
85°	4.5	4.1	3.2	2.9	2.6	2.2	1.9	1.9	3.2	3.8	3.8
87.5°	3.5	3.2	2.9	2.6	2.6	2.2	1.9	1.9	2.9	3.5	3.8
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)