

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: McGRAW-EDISON

Report Number: P823387

Luminaire Tested: **TTN-D2-740-U-DL**

Issue Date: 4/16/2024

Test Information

Test Method: LM-79-08
Report Number: P823387
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2312-254-11)
Test Lab: INNOVATION CENTER
Issue Date: 4/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TTN-D2-740-U-DL
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE
4000K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5012 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

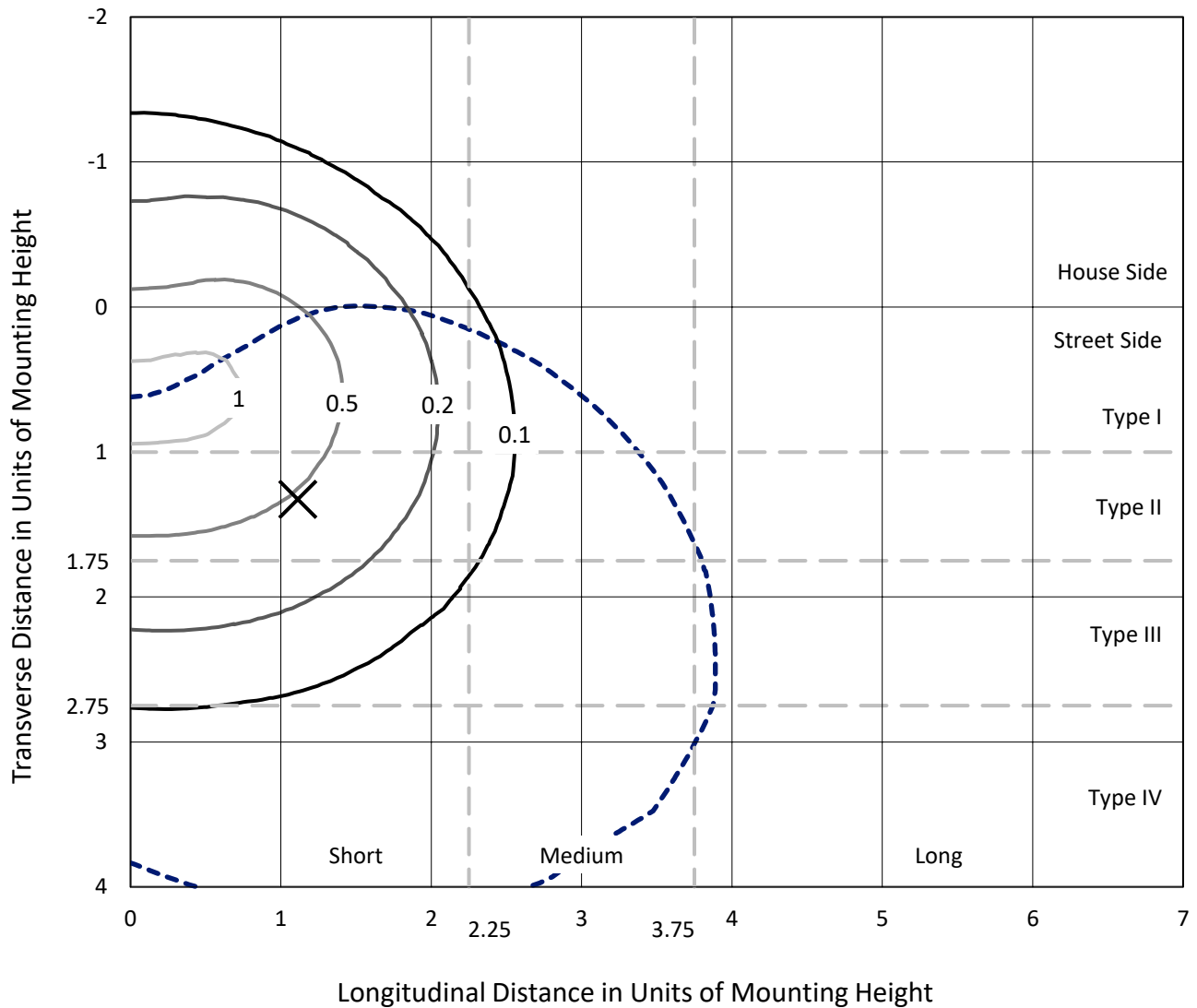
Input Watts (W): 42.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

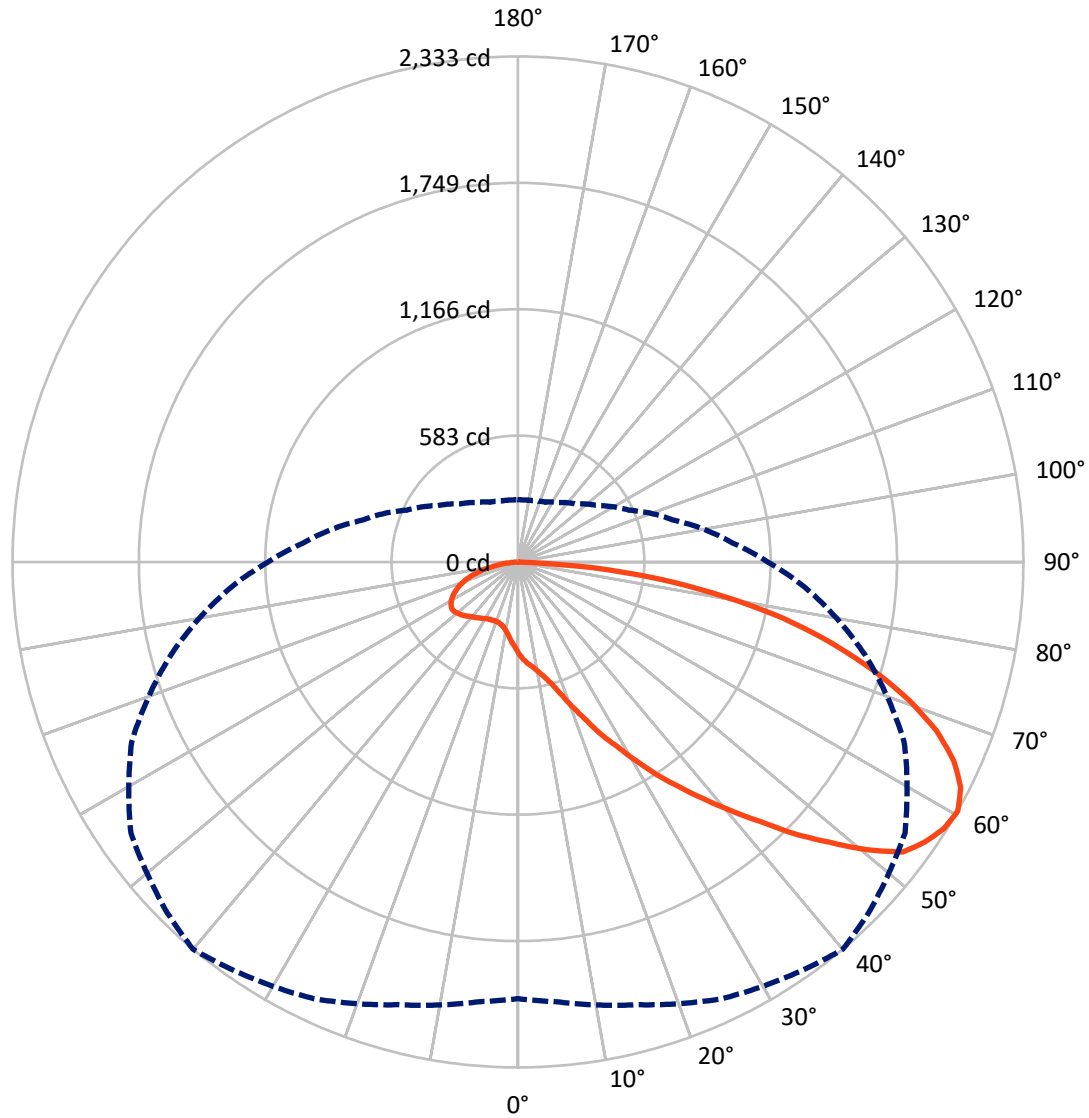
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical



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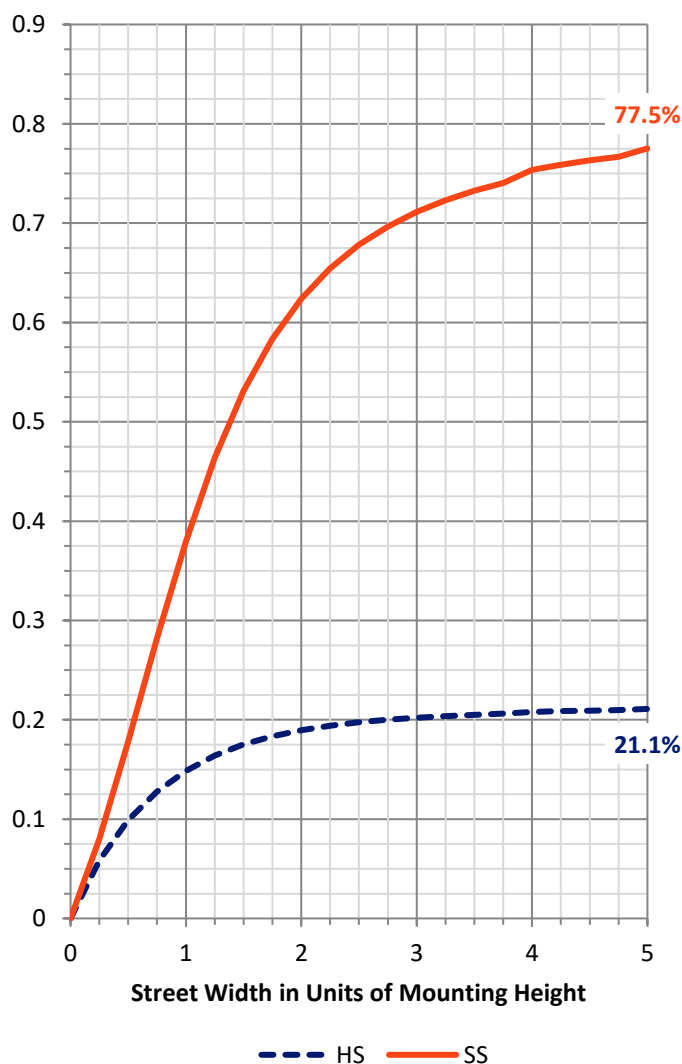
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1067.3	0.0	1067.3
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	3944.7	0.0	3944.7
	% Fixture	78.7	0.0	78.7
Total	Lumens	5012.0	0.0	5012.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	0.8
10°-20°	127.0	2.5
20°-30°	268.4	5.4
30°-40°	490.5	9.8
40°-50°	797.1	15.9
50°-60°	1107.9	22.1
60°-70°	1148.5	22.9
70°-80°	823.0	16.4
80°-90°	209.8	4.2
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°	5012.0	100.0
0°-180°	5012.0	100.0

Coefficient of Utilization

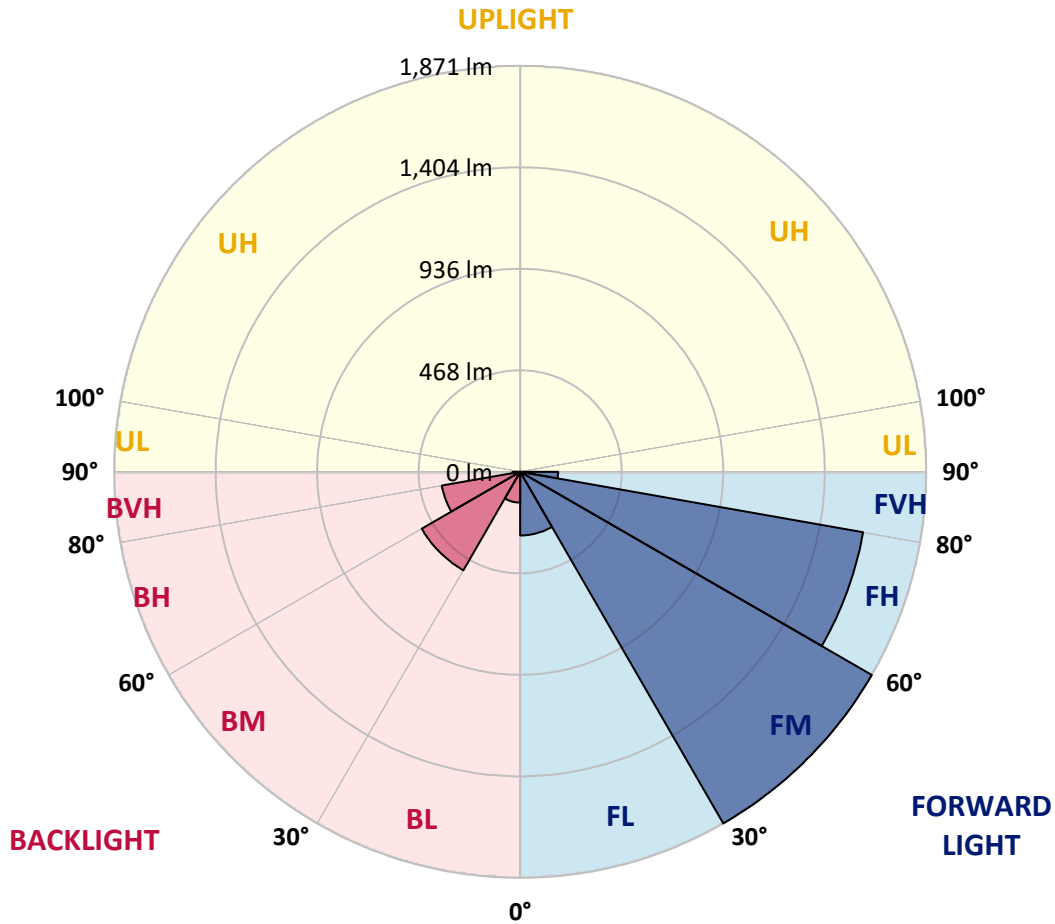


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	293.3	5.9			
FM (30°-60°)	1871.5	37.3			
FH (60°-80°)	1605.1	32.0			G1/1800
FVH (80°-90°)	174.8	3.5			G2/225
BL (0°-30°)	141.9	2.8	B1/500		
BM (30°-60°)	524.0	10.5	B1/1000		
BH (60°-80°)	366.4	7.3	B1/500		G1/500
BVH (80°-90°)	35.0	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1
2.5°	452.6	452.6	452.6	452.6	448.2	448.2	443.9	439.5	435.2	430.8	422.1
5°	491.7	491.7	487.4	483.0	474.3	470.0	465.6	456.9	448.2	439.5	426.5
7.5°	509.2	509.2	509.2	504.8	491.7	487.4	478.7	465.6	452.6	439.5	422.1
10°	539.6	539.6	535.3	530.9	517.9	513.5	504.8	487.4	465.6	443.9	422.1
12.5°	578.8	574.4	570.1	565.7	552.7	544.0	530.9	513.5	487.4	461.3	435.2
15°	626.7	618.0	618.0	609.2	596.2	583.1	574.4	548.3	522.2	487.4	452.6
17.5°	678.9	674.5	670.2	661.5	648.4	639.7	626.7	596.2	561.4	517.9	478.7
20°	744.2	735.4	739.8	726.7	713.7	709.3	687.6	652.8	609.2	561.4	513.5
22.5°	822.5	813.8	813.8	800.7	792.0	783.3	761.6	722.4	665.8	613.6	552.7
25°	909.5	900.8	900.8	892.1	883.4	874.7	848.6	805.1	739.8	674.5	604.9
27.5°	1005.3	996.6	996.6	992.2	970.4	957.4	935.6	887.8	822.5	739.8	657.1
30°	1105.3	1096.6	1105.3	1096.6	1083.6	1057.5	1031.4	979.1	905.2	813.8	713.7
32.5°	1183.7	1183.7	1188.0	1196.7	1188.0	1166.3	1135.8	1092.3	992.2	879.1	765.9
35°	1275.1	1275.1	1283.8	1296.8	1292.5	1270.7	1240.3	1192.4	1087.9	953.0	822.5
37.5°	1375.2	1375.2	1383.9	1405.6	1396.9	1383.9	1362.1	1301.2	1183.7	1027.0	883.4
40°	1484.0	1479.6	1488.3	1518.8	1523.1	1505.7	1479.6	1418.7	1283.8	1122.8	948.7
42.5°	1592.7	1588.4	1605.8	1636.3	1640.6	1636.3	1610.2	1540.5	1388.2	1218.5	1014.0
45°	1701.5	1701.5	1727.6	1775.5	1797.3	1788.6	1766.8	1679.8	1518.8	1318.6	1101.0
47.5°	1814.7	1814.7	1849.5	1910.4	1936.5	1932.2	1923.5	1819.0	1645.0	1423.0	1175.0
50°	1901.7	1901.7	1958.3	2027.9	2071.4	2088.8	2045.3	1949.6	1753.8	1514.4	1235.9
52.5°	1988.8	1988.8	2045.3	2154.1	2197.6	2223.8	2167.2	2067.1	1875.6	1597.1	1292.5
55°	2032.3	2041.0	2119.3	2223.8	2293.4	2280.3	2302.1	2167.2	1953.9	1658.0	1327.3
57.5°	2036.6	2049.7	2136.7	2245.5	2323.8	2319.5	2323.8	2202.0	1984.4	1671.1	1331.6
60°	2014.9	2036.6	2115.0	2223.8	2297.7	2332.5	2289.0	2180.2	1967.0	1658.0	1327.3
62.5°	1962.6	2006.2	2088.8	2171.5	2280.3	2293.4	2258.6	2167.2	1919.1	1645.0	1305.5
65°	1845.1	1893.0	2010.5	2106.3	2193.3	2210.7	2171.5	2093.2	1871.3	1584.0	1235.9
67.5°	1727.6	1758.1	1858.2	2006.2	2067.1	2084.5	2071.4	1980.1	1788.6	1462.2	1153.2
70°	1592.7	1631.9	1710.2	1862.6	1923.5	1919.1	1958.3	1853.9	1662.4	1357.7	1066.2
72.5°	1410.0	1466.5	1544.9	1671.1	1745.1	1718.9	1779.9	1692.8	1497.0	1227.2	948.7
75°	1196.7	1244.6	1344.7	1444.8	1527.5	1497.0	1544.9	1484.0	1305.5	1070.5	813.8
77.5°	957.4	1014.0	1105.3	1196.7	1253.3	1253.3	1275.1	1222.8	1083.6	879.1	665.8
80°	709.3	761.6	844.2	909.5	961.7	966.1	987.8	961.7	835.5	683.2	509.2
82.5°	470.0	496.1	570.1	622.3	674.5	670.2	705.0	687.6	583.1	470.0	339.4
85°	200.2	217.6	278.5	322.0	369.9	352.5	400.4	396.0	313.3	226.3	152.3
87.5°	8.7	13.1	13.1	8.7	13.1	4.4	13.1	17.4	13.1	8.7	8.7
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°	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1	422.1
2.5°	422.1	417.8	409.1	404.7	400.4	391.7	391.7	387.3	387.3	387.3	383.0
5°	422.1	413.4	404.7	391.7	383.0	374.3	365.5	356.8	352.5	352.5	348.1
7.5°	413.4	404.7	391.7	378.6	365.5	348.1	339.4	322.0	317.7	313.3	313.3
10°	413.4	404.7	383.0	365.5	348.1	330.7	317.7	300.3	287.2	282.9	282.9
12.5°	417.8	404.7	383.0	361.2	339.4	317.7	300.3	282.9	269.8	261.1	261.1
15°	435.2	417.8	391.7	361.2	335.1	309.0	291.6	269.8	256.8	248.1	248.1
17.5°	456.9	439.5	400.4	365.5	335.1	304.6	282.9	261.1	248.1	239.3	235.0
20°	487.4	461.3	417.8	369.9	335.1	304.6	278.5	256.8	239.3	230.6	230.6
22.5°	522.2	491.7	435.2	378.6	339.4	304.6	278.5	252.4	235.0	226.3	226.3
25°	565.7	526.6	461.3	396.0	348.1	309.0	278.5	252.4	235.0	226.3	226.3
27.5°	613.6	570.1	487.4	413.4	356.8	313.3	278.5	252.4	235.0	226.3	226.3
30°	657.1	609.2	513.5	430.8	369.9	317.7	282.9	256.8	239.3	230.6	226.3
32.5°	705.0	644.1	539.6	448.2	378.6	326.4	287.2	261.1	239.3	230.6	230.6
35°	752.9	687.6	565.7	470.0	391.7	335.1	291.6	265.5	243.7	235.0	235.0
37.5°	805.1	735.4	596.2	487.4	404.7	343.8	300.3	269.8	248.1	239.3	239.3
40°	866.0	783.3	626.7	509.2	417.8	352.5	304.6	278.5	256.8	248.1	248.1
42.5°	922.6	826.8	657.1	526.6	430.8	361.2	313.3	282.9	265.5	256.8	256.8
45°	979.1	879.1	687.6	548.3	443.9	374.3	322.0	295.9	274.2	265.5	265.5
47.5°	1044.4	926.9	722.4	565.7	456.9	383.0	330.7	304.6	282.9	278.5	274.2
50°	1096.6	961.7	744.2	583.1	465.6	391.7	339.4	309.0	291.6	282.9	282.9
52.5°	1144.5	996.6	761.6	591.8	470.0	396.0	348.1	317.7	300.3	291.6	291.6
55°	1170.6	1009.6	774.6	591.8	474.3	400.4	348.1	317.7	300.3	295.9	291.6
57.5°	1170.6	1009.6	765.9	583.1	465.6	391.7	343.8	313.3	300.3	291.6	291.6
60°	1153.2	996.6	744.2	565.7	452.6	378.6	335.1	304.6	291.6	287.2	287.2
62.5°	1127.1	974.8	726.7	544.0	435.2	361.2	322.0	291.6	282.9	282.9	278.5
65°	1057.5	909.5	687.6	513.5	409.1	339.4	304.6	278.5	269.8	265.5	261.1
67.5°	983.5	848.6	626.7	478.7	374.3	317.7	282.9	261.1	248.1	248.1	243.7
70°	909.5	783.3	570.1	430.8	335.1	291.6	256.8	235.0	226.3	226.3	226.3
72.5°	809.4	700.6	504.8	378.6	295.9	256.8	230.6	208.9	204.5	204.5	200.2
75°	691.9	596.2	426.5	322.0	248.1	217.6	195.8	174.1	174.1	174.1	174.1
77.5°	565.7	483.0	339.4	256.8	195.8	174.1	161.0	143.6	143.6	143.6	143.6
80°	426.5	356.8	248.1	187.1	143.6	126.2	117.5	108.8	113.1	113.1	108.8
82.5°	278.5	235.0	156.7	117.5	91.4	82.7	82.7	74.0	78.3	78.3	78.3
85°	121.8	104.4	65.3	52.2	43.5	43.5	43.5	39.2	43.5	43.5	43.5
87.5°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	0.0	4.4	8.7	4.4
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)