

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: P832646

Luminaire Tested: **TTN-D2-830-U-DL-CG**

Issue Date: 5/14/2024

Test Information

Test Method: LM-79-08
Report Number: P832646
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2312-254-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TTN-D2-830-U-DL-CG
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE
3000K, 80 CRI LEDS AND DRIVE LANE DISTRIBUTION WITH CLEAR GLASS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4452 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

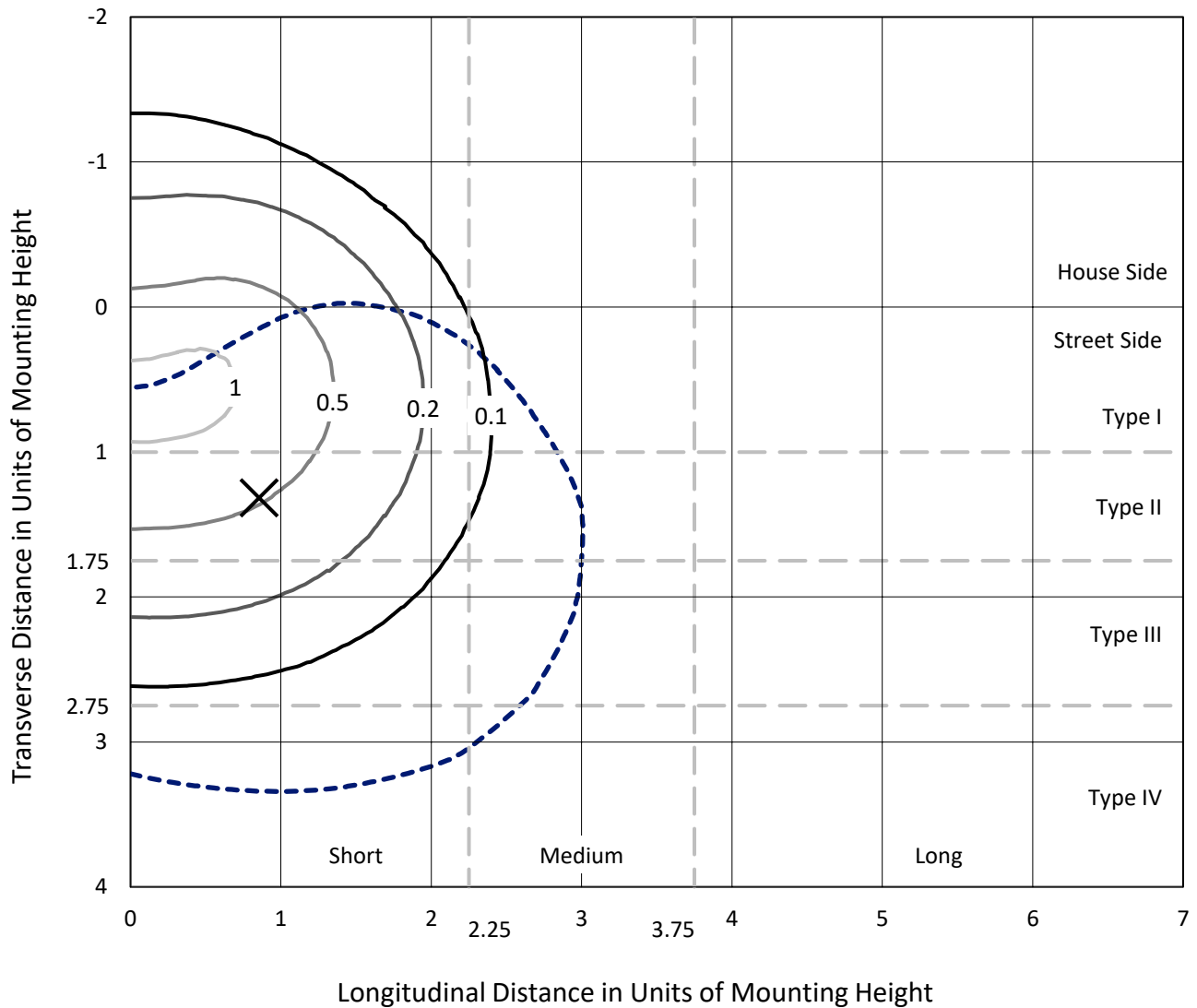
Input Watts (W): 42.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

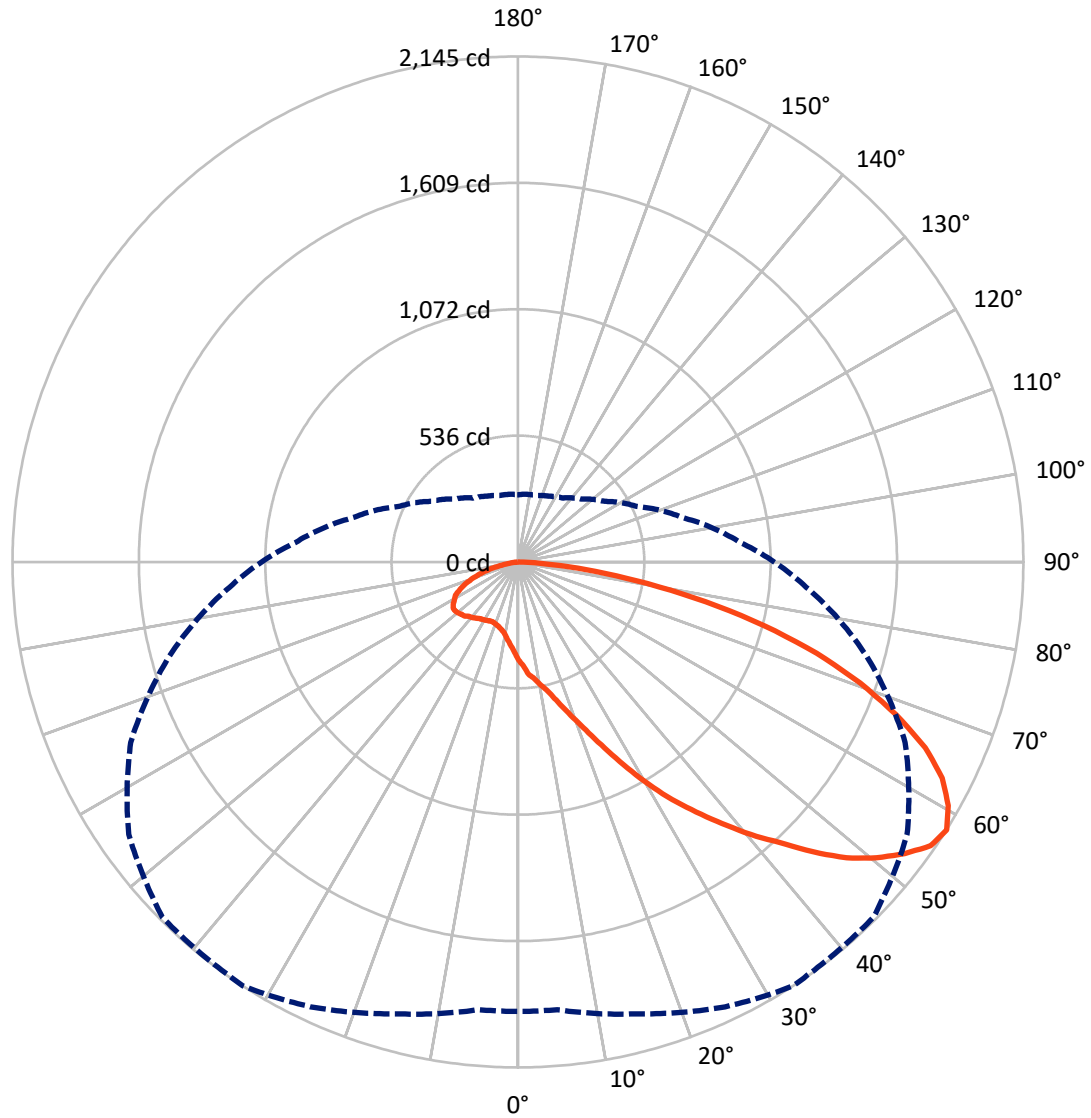
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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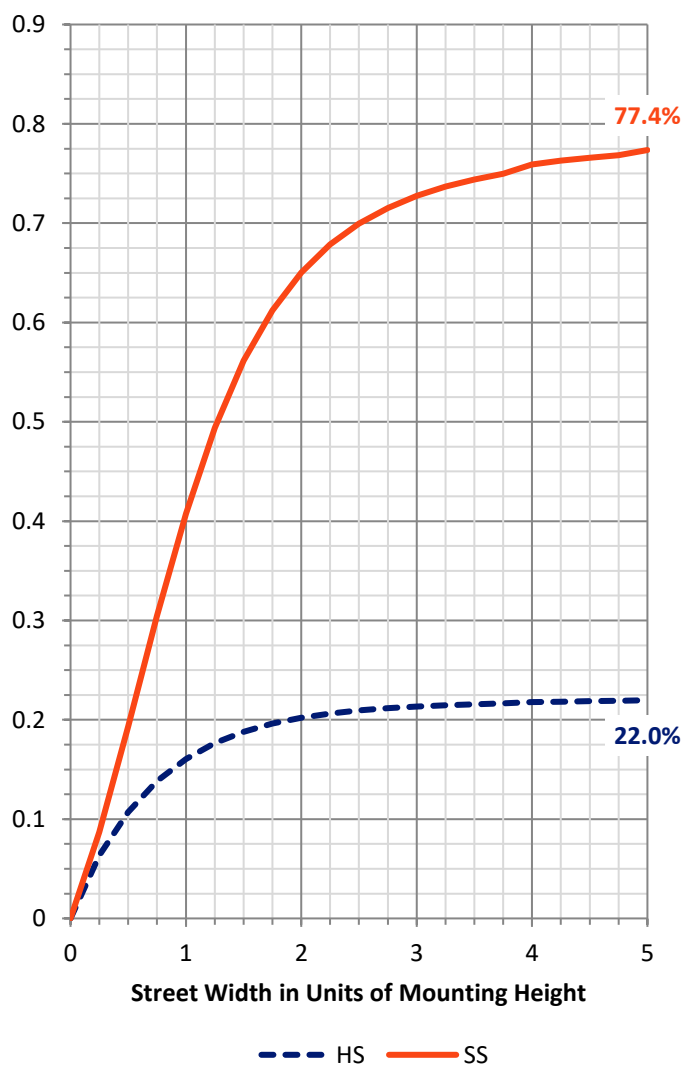
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	982.4	0.0	982.4
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	3469.6	0.0	3469.6
	% Fixture	77.9	0.0	77.9
Total	Lumens	4452.0	0.0	4452.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	0.9
10°-20°	129.5	2.9
20°-30°	273.0	6.1
30°-40°	495.8	11.1
40°-50°	783.4	17.6
50°-60°	1040.4	23.4
60°-70°	1001.4	22.5
70°-80°	587.8	13.2
80°-90°	100.9	2.3
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°	4452.0	100.0
0°-180°	4452.0	100.0

Coefficient of Utilization



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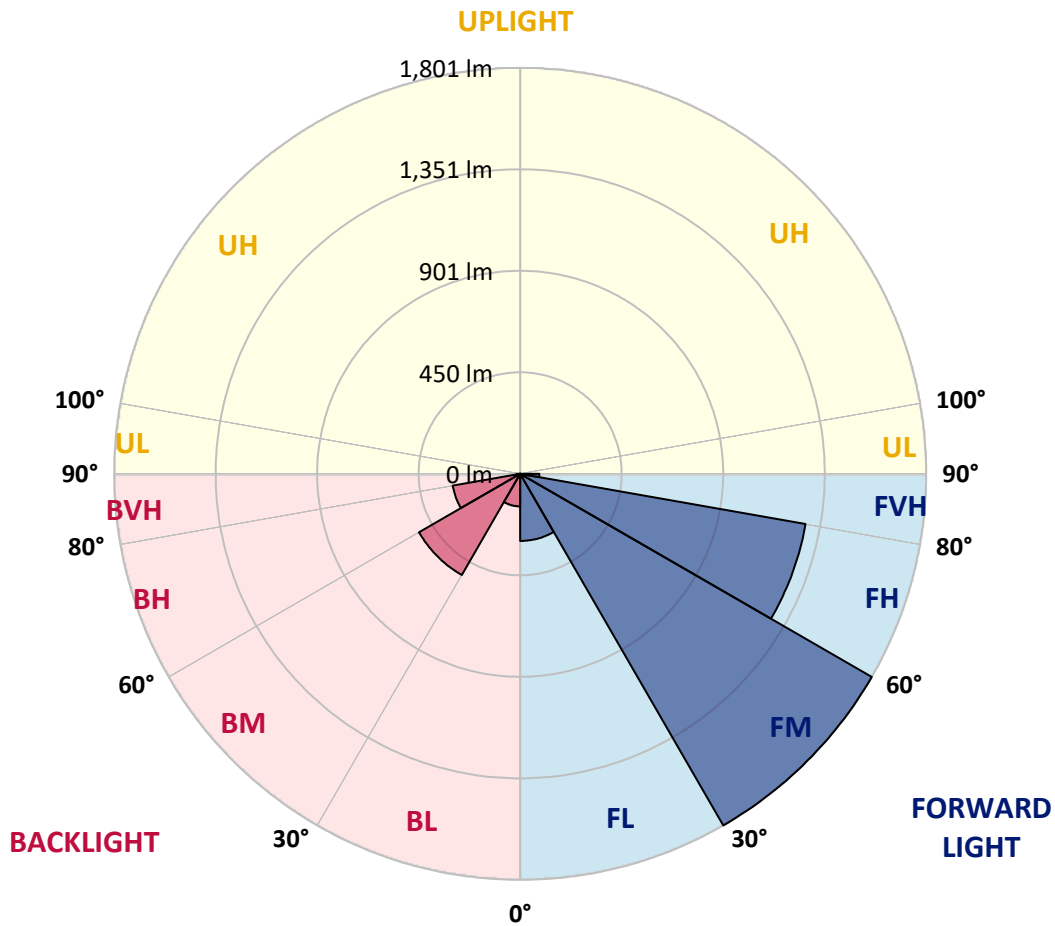
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	297.8	6.7			
FM (30°-60°)	1801.1	40.5			
FH (60°-80°)	1285.4	28.9			G1/1800
FVH (80°-90°)	85.2	1.9			G1/100
BL (0°-30°)	144.5	3.2	B1/500		
BM (30°-60°)	518.4	11.6	B1/1000		
BH (60°-80°)	303.8	6.8	B1/500		G1/500
BVH (80°-90°)	15.7	0.4			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°	33°	35°	45°	55°	65°	75°	85°
0°	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3
2.5°	444.6	448.5	444.6	444.6	440.7	440.7	436.8	432.9	429.0	425.1	417.3
5°	495.3	495.3	491.4	483.6	479.7	475.8	468.0	456.3	448.5	436.8	425.1
7.5°	518.7	518.7	514.8	507.0	499.2	495.3	483.6	468.0	456.3	440.7	425.1
10°	549.8	553.7	545.9	538.1	530.3	526.4	510.9	491.4	471.9	452.4	429.0
12.5°	584.9	588.8	584.9	573.2	561.5	557.6	542.0	518.7	495.3	468.0	440.7
15°	631.7	639.5	627.8	620.0	608.3	604.4	584.9	557.6	530.3	495.3	460.2
17.5°	686.3	690.2	682.4	670.7	662.9	659.0	639.5	608.3	569.3	530.3	487.5
20°	748.7	752.6	748.7	733.1	725.3	721.4	701.9	666.8	620.0	577.1	522.6
22.5°	822.8	830.6	818.9	807.2	799.4	799.4	776.0	737.0	682.4	627.8	565.4
25°	908.6	920.3	904.7	896.9	889.1	885.2	865.7	818.9	756.5	690.2	612.2
27.5°	1013.9	1021.7	1010.0	1006.1	990.5	990.5	959.3	904.7	838.4	760.4	670.7
30°	1107.5	1115.3	1107.5	1107.5	1095.8	1091.9	1060.7	1006.1	924.2	830.6	721.4
32.5°	1197.2	1205.0	1201.1	1205.0	1201.1	1197.2	1158.2	1099.7	1017.8	896.9	772.1
35°	1286.9	1298.6	1294.7	1306.4	1302.5	1298.6	1267.4	1197.2	1099.7	978.8	826.7
37.5°	1380.5	1392.2	1392.2	1403.9	1407.8	1407.8	1372.7	1298.6	1189.4	1052.9	889.1
40°	1481.9	1493.6	1493.6	1513.1	1520.9	1520.9	1481.9	1407.8	1286.9	1134.8	955.4
42.5°	1579.3	1591.0	1594.9	1614.4	1626.1	1630.0	1598.8	1513.1	1372.7	1216.7	1017.8
45°	1672.9	1684.6	1696.3	1735.3	1754.8	1750.9	1727.5	1637.8	1481.9	1302.5	1084.1
47.5°	1762.6	1778.2	1797.7	1848.4	1875.7	1871.8	1856.2	1754.8	1583.2	1384.4	1142.6
50°	1832.8	1844.5	1883.5	1938.1	1973.2	1977.1	1953.7	1856.2	1669.0	1446.8	1185.5
52.5°	1887.4	1903.0	1949.8	2027.8	2055.1	2066.8	2039.5	1942.0	1754.8	1501.4	1220.6
55°	1926.4	1926.4	1996.6	2086.3	2125.3	2133.1	2133.1	2012.2	1805.5	1536.5	1240.1
57.5°	1906.9	1906.9	1984.9	2082.4	2144.8	2140.9	2133.1	2016.1	1813.3	1528.7	1228.4
60°	1852.3	1864.0	1938.1	2035.6	2098.0	2094.1	2070.7	1965.4	1774.3	1497.5	1205.0
62.5°	1778.2	1797.7	1875.7	1949.8	2020.0	2031.7	2000.5	1906.9	1708.0	1450.7	1162.1
65°	1637.8	1665.1	1762.6	1844.5	1899.1	1922.5	1883.5	1797.7	1618.3	1361.0	1072.4
67.5°	1481.9	1501.4	1583.2	1700.2	1731.4	1754.8	1735.3	1645.6	1493.6	1216.7	971.0
70°	1302.5	1333.7	1388.3	1505.3	1540.4	1563.8	1563.8	1474.1	1329.8	1068.5	850.1
72.5°	1091.9	1127.0	1193.3	1279.1	1325.9	1341.5	1337.6	1263.5	1134.8	904.7	717.5
75°	861.8	889.1	967.1	1029.5	1080.2	1091.9	1088.0	1025.6	908.6	729.2	569.3
77.5°	635.6	662.9	721.4	768.2	815.0	807.2	807.2	760.4	686.3	542.0	432.9
80°	417.3	440.7	491.4	507.0	557.6	553.7	553.7	518.7	468.0	362.7	288.6
82.5°	230.1	249.6	284.7	300.3	331.5	323.7	327.6	304.2	273.0	202.8	163.8
85°	81.9	97.5	117.0	128.7	144.3	144.3	144.3	124.8	117.0	78.0	66.3
87.5°	3.9	7.8	15.6	15.6	23.4	23.4	23.4	15.6	15.6	3.9	3.9
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°	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3	417.3
2.5°	413.4	409.5	405.6	397.8	393.9	390.0	386.1	382.2	382.2	382.2	382.2
5°	417.3	413.4	401.7	390.0	378.3	366.6	358.8	354.9	351.0	347.1	347.1
7.5°	417.3	409.5	393.9	378.3	366.6	351.0	339.3	327.6	319.8	315.9	315.9
10°	421.2	409.5	390.0	374.4	354.9	335.4	319.8	304.2	296.4	288.6	288.6
12.5°	429.0	417.3	390.0	370.5	347.1	323.7	304.2	288.6	276.9	269.1	269.1
15°	444.6	429.0	397.8	370.5	343.2	315.9	296.4	276.9	265.2	257.4	257.4
17.5°	468.0	448.5	409.5	370.5	339.3	312.0	288.6	269.1	253.5	245.7	245.7
20°	495.3	471.9	425.1	378.3	339.3	308.1	284.7	261.3	245.7	237.9	237.9
22.5°	534.2	499.2	444.6	390.0	347.1	312.0	280.8	257.4	241.8	234.0	234.0
25°	577.1	538.1	468.0	405.6	354.9	312.0	280.8	257.4	241.8	234.0	230.1
27.5°	623.9	581.0	495.3	421.2	362.7	319.8	284.7	257.4	241.8	234.0	234.0
30°	666.8	616.1	522.6	440.7	374.4	323.7	288.6	261.3	241.8	234.0	234.0
32.5°	713.6	655.1	549.8	460.2	386.1	331.5	292.5	265.2	245.7	237.9	234.0
35°	760.4	694.1	577.1	475.8	397.8	339.3	296.4	269.1	249.6	241.8	241.8
37.5°	811.1	737.0	604.4	495.3	409.5	347.1	304.2	273.0	253.5	245.7	245.7
40°	865.7	779.9	631.7	510.9	421.2	354.9	312.0	280.8	261.3	253.5	253.5
42.5°	920.3	826.7	662.9	530.3	432.9	362.7	315.9	288.6	269.1	261.3	261.3
45°	974.9	865.7	690.2	549.8	444.6	374.4	327.6	296.4	276.9	269.1	269.1
47.5°	1025.6	908.6	713.6	561.5	456.3	382.2	331.5	304.2	284.7	280.8	276.9
50°	1060.7	935.9	729.2	573.2	460.2	386.1	339.3	308.1	292.5	284.7	284.7
52.5°	1088.0	963.2	740.9	581.0	464.1	390.0	343.2	315.9	300.3	292.5	288.6
55°	1103.6	967.1	740.9	573.2	460.2	390.0	343.2	315.9	300.3	292.5	292.5
57.5°	1088.0	947.6	725.3	557.6	448.5	378.3	331.5	308.1	292.5	288.6	284.7
60°	1056.8	916.4	694.1	534.2	429.0	358.8	315.9	296.4	284.7	280.8	276.9
62.5°	1013.9	877.4	662.9	503.1	401.7	335.4	304.2	280.8	273.0	269.1	265.2
65°	928.1	803.3	612.2	464.1	366.6	308.1	276.9	261.3	253.5	245.7	241.8
67.5°	834.5	721.4	542.0	417.3	323.7	276.9	249.6	234.0	222.3	222.3	218.4
70°	733.1	635.6	468.0	354.9	280.8	241.8	214.5	202.8	195.0	195.0	191.1
72.5°	612.2	534.2	390.0	288.6	230.1	198.9	179.4	167.7	163.8	163.8	159.9
75°	491.4	421.2	308.1	226.2	179.4	156.0	140.4	132.6	128.7	128.7	124.8
77.5°	362.7	308.1	222.3	163.8	128.7	113.1	101.4	97.5	93.6	93.6	89.7
80°	241.8	202.8	144.3	105.3	78.0	70.2	62.4	62.4	58.5	62.4	58.5
82.5°	132.6	109.2	78.0	54.6	39.0	35.1	31.2	31.2	35.1	35.1	31.2
85°	50.7	39.0	27.3	15.6	11.7	11.7	11.7	11.7	11.7	11.7	7.8
87.5°	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)