

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: P237553

Luminaire Tested: **CTN-8-4-D-E1-T2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237553
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-4-D-E1-T2-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38148 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

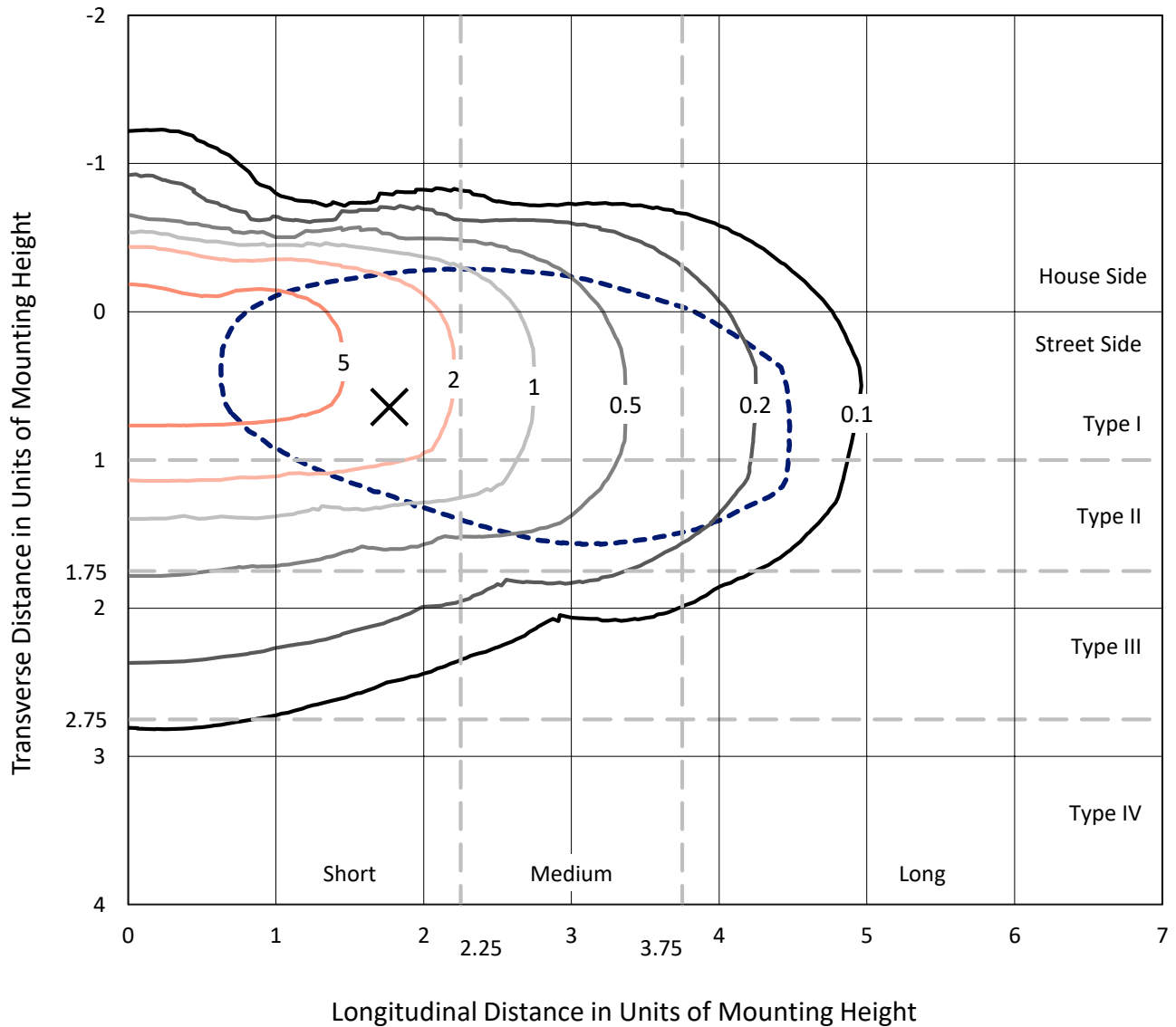
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P237553
 CATALOG NUMBER: CTN-8-4-D-E1-T2-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

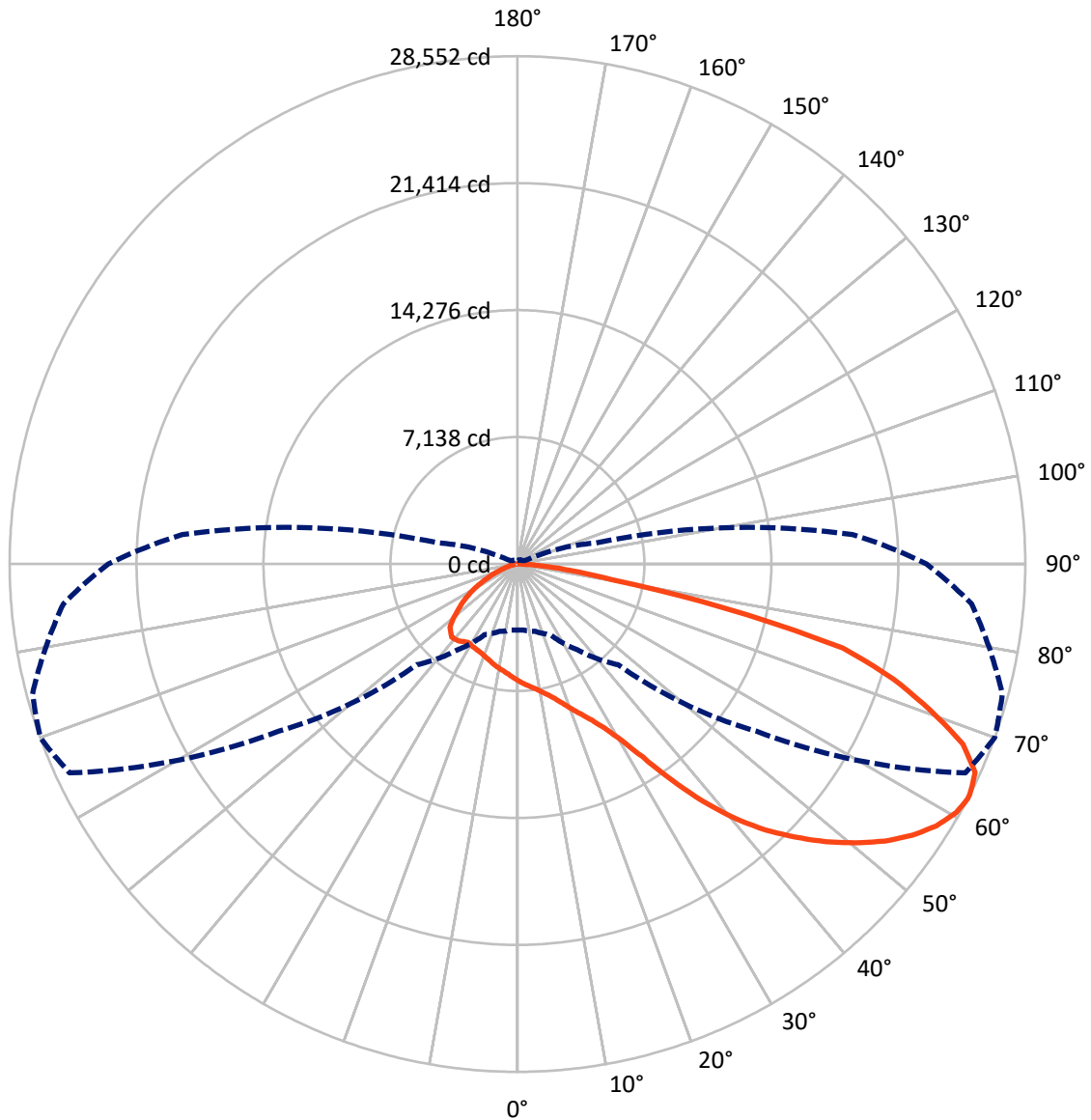
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.4 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P237553
CATALOG NUMBER: CTN-8-4-D-E1-T2-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

REPORT NUMBER: P237553

CATALOG NUMBER: CTN-8-4-D-E1-T2-7030-HSS

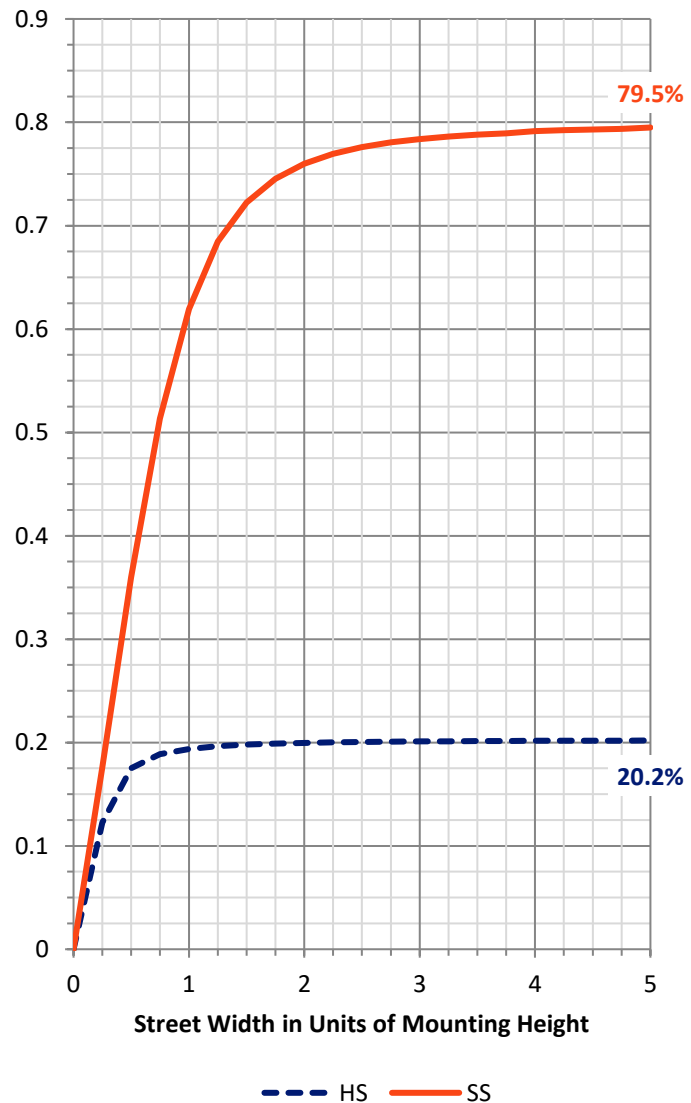
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7803.5	0.0	7803.5
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	30344.5	0.0	30344.5
	% Fixture	79.5	0.0	79.5
Total	Lumens	38148.0	0.0	38148.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	625.1	1.6
10°-20°	1902.0	5.0
20°-30°	3202.2	8.4
30°-40°	4835.2	12.7
40°-50°	6780.4	17.8
50°-60°	7924.7	20.8
60°-70°	7688.5	20.2
70°-80°	4494.6	11.8
80°-90°	695.3	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°	38148.0	100.0
0°-180°	38148.0	100.0



REPORT NUMBER: P237553

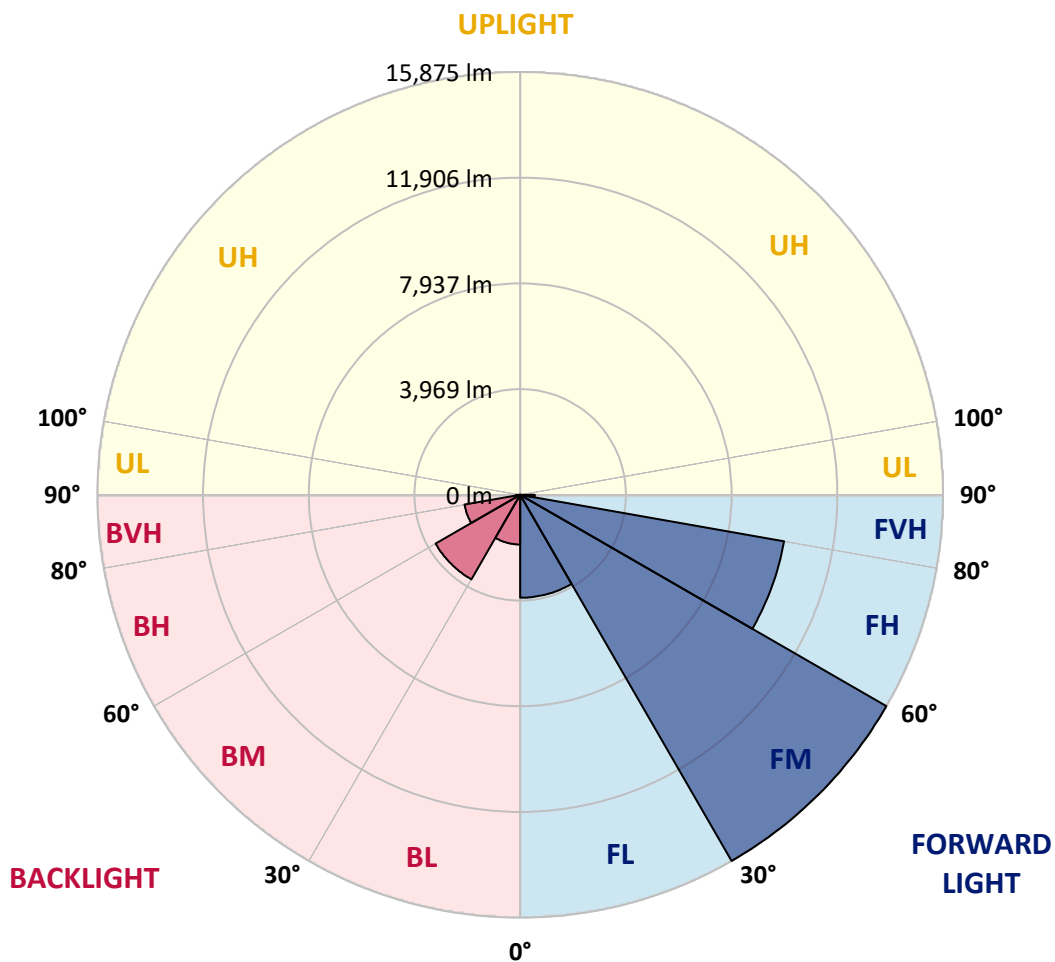
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3863.6	10.1			
FM	(30°-60°)	15874.8	41.6			
FH	(60°-80°)	10061.3	26.4			G4/12000
FVH	(80°-90°)	544.8	1.4			G4/750
BL	(0°-30°)	1865.7	4.9	B3/2500		
BM	(30°-60°)	3665.6	9.6	B3/5000		
BH	(60°-80°)	2121.8	5.6	B3/2500		G3/2500
BVH	(80°-90°)	150.4	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





REPORT NUMBER: P237553

CATALOG NUMBER: CTN-8-4-D-E1-T2-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9
2.5°	7122.2	7075.0	7054.8	7084.4	6886.3	6890.4	6794.7	6779.9	6734.1	6669.4	6598.0
5°	7529.2	7473.9	7445.6	7463.1	7254.2	7217.9	7061.5	6984.7	6894.4	6813.6	6658.6
7.5°	7920.0	7863.4	7841.8	7832.4	7580.4	7525.1	7325.7	7189.6	7066.9	6963.2	6752.9
10°	8313.5	8255.5	8211.1	8223.2	7959.1	7860.7	7630.2	7442.9	7285.2	7150.5	6860.7
12.5°	8704.3	8634.2	8585.7	8585.7	8325.6	8229.9	7971.2	7731.3	7530.5	7360.7	6996.9
15°	9104.5	9012.9	9002.1	9002.1	8725.9	8610.0	8355.3	8089.8	7843.2	7624.8	7161.3
17.5°	9518.3	9402.4	9399.7	9417.2	9163.8	9033.1	8793.2	8545.3	8231.3	7955.0	7362.1
20°	9790.5	9686.7	9662.4	9715.0	9515.6	9430.7	9173.3	8999.4	8697.6	8368.7	7620.8
22.5°	9998.0	9934.7	9957.6	10043.8	9946.8	9874.0	9603.2	9446.8	9174.6	8837.7	7969.8
25°	10206.9	10165.1	10217.7	10369.9	10378.0	10398.2	10171.8	9972.4	9719.0	9418.5	8424.0
27.5°	10142.2	10130.1	10289.1	10603.1	10775.6	10867.2	10740.5	10670.5	10438.7	10122.0	8995.4
30°	10189.4	10159.7	10351.1	10748.6	11132.7	11398.2	11398.2	11557.2	11456.1	11138.1	9867.3
32.5°	10049.2	9994.0	10213.6	10783.7	11444.0	11960.1	12189.2	12752.5	12929.1	12814.5	11596.3
35°	9403.7	9445.5	9875.4	10643.5	11658.3	12510.0	13116.4	14323.9	14867.0	14996.3	13586.7
37.5°	9000.8	9018.3	9456.3	10414.4	11733.7	13050.4	14131.2	16137.8	16907.3	16986.8	15333.2
40°	8445.5	8511.6	9002.1	10107.2	11690.6	13507.2	15224.1	17926.1	18781.8	18715.8	16861.4
42.5°	8007.6	8026.4	8455.0	9619.3	11502.0	13871.1	16326.4	19549.9	20446.1	20261.5	18372.1
45°	7461.8	7496.8	7902.5	9012.9	11166.4	14055.7	17277.9	21072.8	21893.5	21663.0	19680.7
47.5°	6801.4	6955.1	7379.6	8359.3	10597.7	14036.8	18083.7	22390.7	23327.3	22972.9	20904.3
50°	5478.1	5665.4	6514.4	7770.4	9852.5	13772.7	18725.2	23842.1	24644.0	24286.8	22021.5
52.5°	4785.4	4821.8	5254.4	7108.7	8979.2	13182.4	19161.8	25041.5	25877.0	25501.0	23095.5
55°	4472.8	4510.5	4728.8	6037.3	8177.4	12136.7	19322.2	26185.6	26926.8	26495.6	23980.9
57.5°	4199.2	4211.3	4468.7	5106.1	7413.3	10759.4	18983.9	27139.8	27774.5	27188.3	24595.4
60°	3886.5	3935.1	4188.4	4661.4	6552.1	9159.8	17825.0	27750.2	28349.9	27828.4	25232.9
62°	3711.4	3723.5	3921.6	4385.2	5885.1	8003.5	16381.7	27785.3	28552.1	28221.9	25625.0
62.5°	3660.1	3668.2	3855.5	4315.1	5747.6	7774.4	15988.2	27757.0	28539.9	28290.6	25711.3
65°	3366.4	3385.2	3553.7	3983.6	5145.2	6881.0	14144.6	27294.7	28279.8	28174.7	25703.2
67.5°	3009.2	3014.6	3193.9	3580.6	4524.0	6041.4	11880.6	26410.7	27006.3	26870.2	24577.9
70°	2460.8	2559.1	2754.5	3095.5	3742.3	5011.8	9037.2	23657.5	24634.5	24769.3	22561.9
72.5°	1870.5	1863.8	1932.5	2169.7	2726.2	3850.2	6100.7	19822.2	22086.2	22815.2	20337.0
75°	1154.9	1199.4	1487.8	1677.8	1954.1	2715.5	3824.6	13798.3	18885.6	20145.6	17975.9
77.5°	897.5	905.6	1055.2	1384.0	1601.0	1924.4	2385.3	7518.4	11838.9	14972.1	14000.4
80°	683.2	698.1	796.4	867.9	1126.6	1172.4	1591.5	3889.2	5391.8	7552.1	9405.1
82.5°	412.4	435.3	526.9	568.7	621.3	587.6	855.7	2098.2	2989.0	3865.0	4789.4
85°	207.5	249.3	350.4	331.5	281.7	260.1	366.6	1014.8	1428.5	1890.7	2198.0
87.5°	52.6	63.3	82.2	98.4	83.6	68.7	99.7	274.9	283.0	270.9	758.7
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: P237553

CATALOG NUMBER: CTN-8-4-D-E1-T2-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9	6562.9
2.5°	6573.7	6518.4	6417.4	6359.4	6215.2	6160.0	6056.2	6093.9	6071.0	6048.1	6049.5
5°	6584.5	6484.8	6292.0	6153.2	5944.4	5837.9	5701.8	5680.2	5620.9	5584.5	5588.6
7.5°	6607.4	6464.5	6192.3	5971.3	5677.5	5510.4	5328.5	5297.5	5208.6	5168.1	5173.5
10°	6665.3	6496.9	6127.6	5802.9	5471.3	5239.6	5026.6	4957.9	4873.0	4827.2	4824.5
12.5°	6754.3	6545.4	6036.0	5674.8	5271.9	4971.4	4726.1	4615.6	4494.3	4453.9	4457.9
15°	6895.8	6607.4	5959.2	5498.3	5030.7	4718.0	4414.8	4281.4	4153.4	4106.2	4102.2
17.5°	7068.3	6664.0	5905.3	5290.8	4821.8	4447.2	4180.3	3998.4	3782.8	3751.8	3718.1
20°	7239.4	6777.2	5856.8	5139.8	4573.8	4174.9	3825.9	3639.9	3331.3	3215.4	3173.6
22.5°	7488.7	6956.4	5850.0	4960.6	4324.5	3877.1	3406.8	3106.3	2766.7	2569.9	2526.8
25°	7821.6	7153.2	5867.5	4824.5	4045.6	3498.4	2863.7	2429.8	2106.3	1884.0	1838.2
27.5°	8254.2	7421.4	5920.1	4674.9	3792.2	3044.3	2254.6	1808.5	1534.9	1349.0	1305.8
30°	8891.6	7871.5	6002.3	4536.1	3423.0	2452.7	1657.6	1303.2	1090.2	975.7	974.3
32.5°	10379.4	8876.8	6049.5	4363.6	3079.3	1854.3	1192.6	943.3	773.5	730.4	766.8
35°	12085.5	10301.2	6413.3	4177.6	2541.6	1363.8	851.7	671.1	601.0	611.8	632.0
37.5°	13659.5	11670.4	6968.6	3875.8	2034.9	960.9	611.8	533.7	518.8	557.9	594.3
40°	15052.9	12853.6	7444.3	3544.2	1439.3	671.1	490.5	493.2	478.4	495.9	508.1
42.5°	16419.4	13950.6	7946.9	3098.2	959.5	495.9	443.4	467.6	450.1	452.8	435.3
45°	17777.8	15108.2	8163.9	2547.0	642.8	429.9	415.1	443.4	442.0	431.2	405.6
47.5°	18950.3	15906.0	8438.8	1921.7	478.4	390.8	394.9	415.1	428.5	409.7	397.5
50°	19958.3	16752.3	8227.2	1272.2	427.2	365.2	380.0	380.0	401.6	369.2	354.4
52.5°	20921.8	17594.5	7684.1	838.2	392.2	347.7	362.5	353.1	362.5	330.2	326.1
55°	21500.0	18029.8	7027.8	653.6	370.6	332.9	339.6	336.9	328.8	295.1	301.9
57.5°	22136.0	18531.1	6211.2	548.5	361.2	315.3	316.7	312.6	288.4	265.5	266.8
60°	22644.1	18905.8	5337.9	483.8	350.4	305.9	287.0	280.3	246.6	233.1	234.5
62°	22999.9	18923.3	4576.5	450.1	336.9	299.2	269.5	254.7	217.0	206.2	204.8
62.5°	23038.9	18857.3	4390.6	442.0	331.5	296.5	268.2	246.6	208.9	200.8	198.1
65°	22893.4	18122.8	3502.5	397.5	308.6	280.3	249.3	214.3	179.2	168.5	164.4
67.5°	21809.9	16807.5	2675.0	361.2	280.3	269.5	230.4	188.7	159.0	145.5	142.8
70°	19696.8	15027.3	1909.6	315.3	252.0	245.3	231.8	172.5	146.9	128.0	125.3
72.5°	17349.3	13132.6	1299.1	280.3	223.7	202.1	171.1	163.1	137.5	113.2	110.5
75°	14764.5	10458.9	924.5	241.2	192.7	171.1	144.2	150.9	129.4	101.1	98.4
77.5°	11328.1	7692.2	685.9	198.1	149.6	138.8	121.3	133.4	117.2	91.6	90.3
80°	7735.3	5312.3	487.8	149.6	98.4	98.4	102.4	114.5	103.8	82.2	80.9
82.5°	4348.8	2796.3	288.4	107.8	67.4	67.4	79.5	93.0	86.2	71.4	70.1
85°	1801.8	1012.1	152.3	67.4	44.5	45.8	56.6	68.7	67.4	56.6	55.3
87.5°	626.6	254.7	44.5	22.9	18.9	20.2	22.9	32.3	32.3	28.3	29.6
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)