

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: P237556

Luminaire Tested: **CTN-10-8-D-E1-T2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237556
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-10-8-D-E1-T2-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 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: 71229 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B4 - U0 - G5

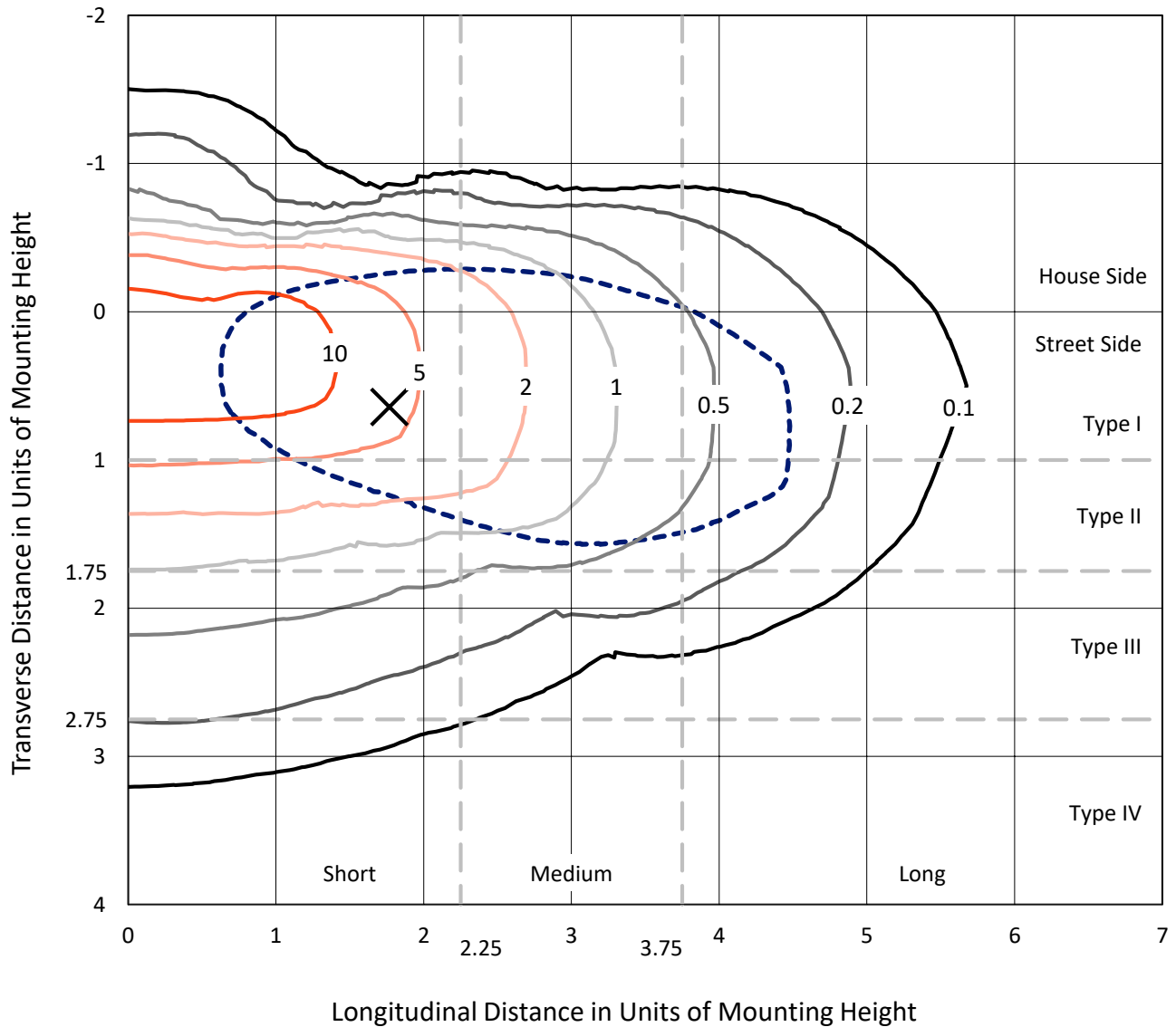
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

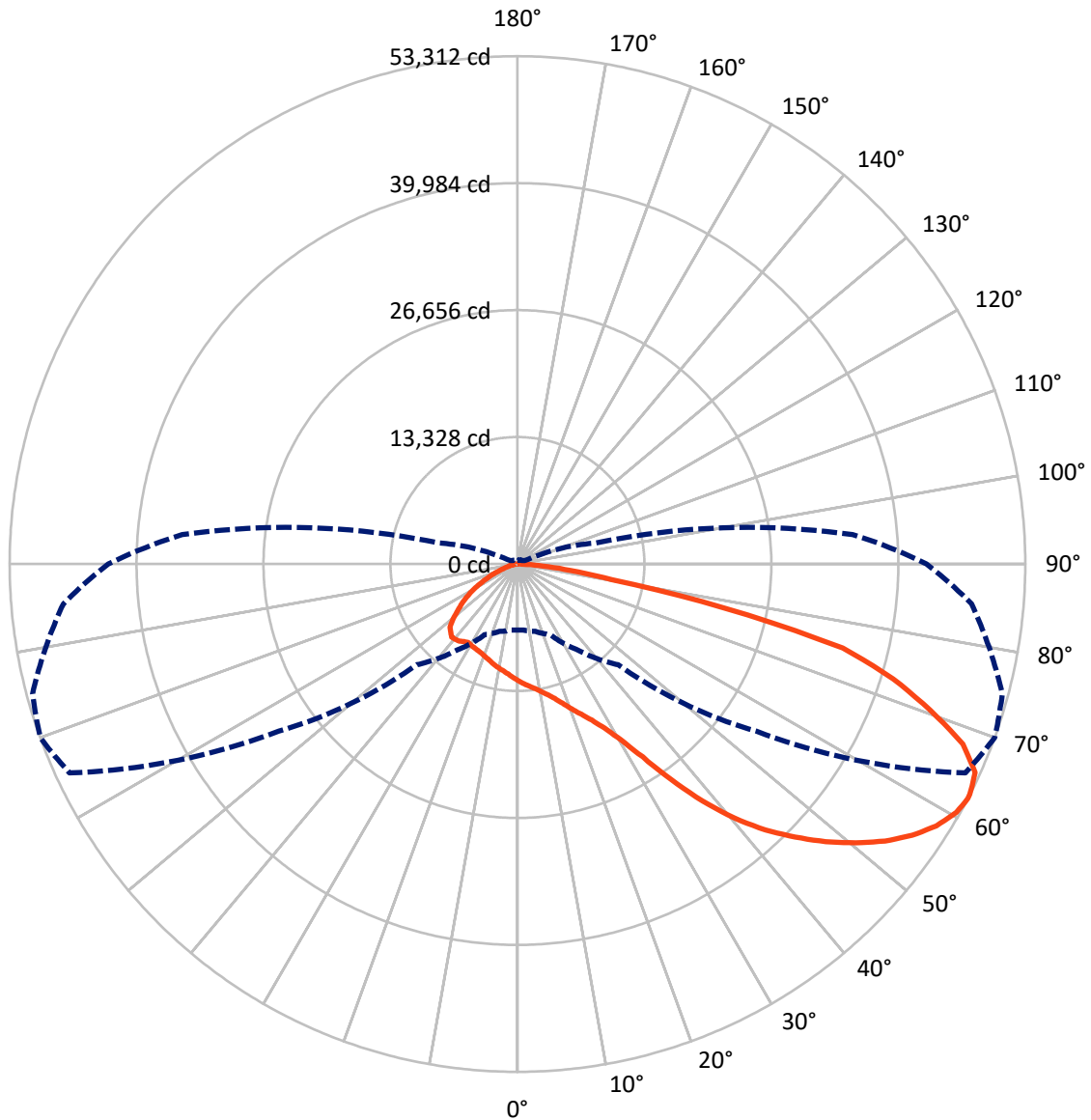
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.6 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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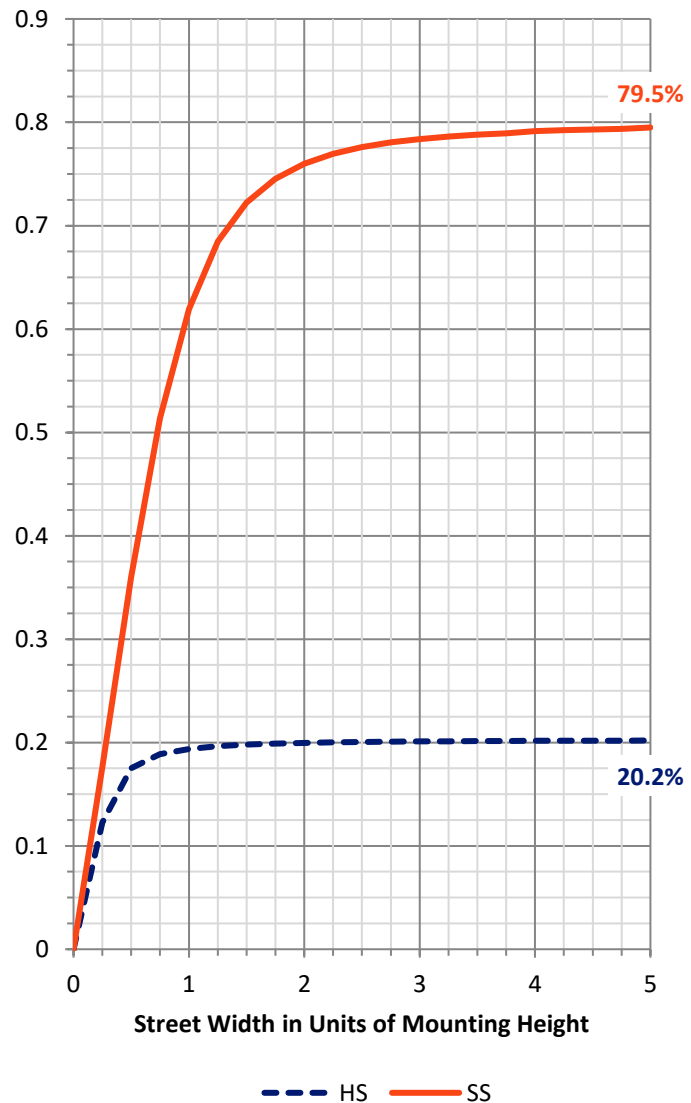
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14570.5	0.0	14570.5
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	56658.5	0.0	56658.5
	% Fixture	79.5	0.0	79.5
Total	Lumens	71229.0	0.0	71229.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1167.2	1.6
10°-20°	3551.3	5.0
20°-30°	5979.0	8.4
30°-40°	9028.1	12.7
40°-50°	12660.3	17.8
50°-60°	14796.9	20.8
60°-70°	14355.7	20.2
70°-80°	8392.2	11.8
80°-90°	1298.2	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°	71229.0	100.0
0°-180°	71229.0	100.0



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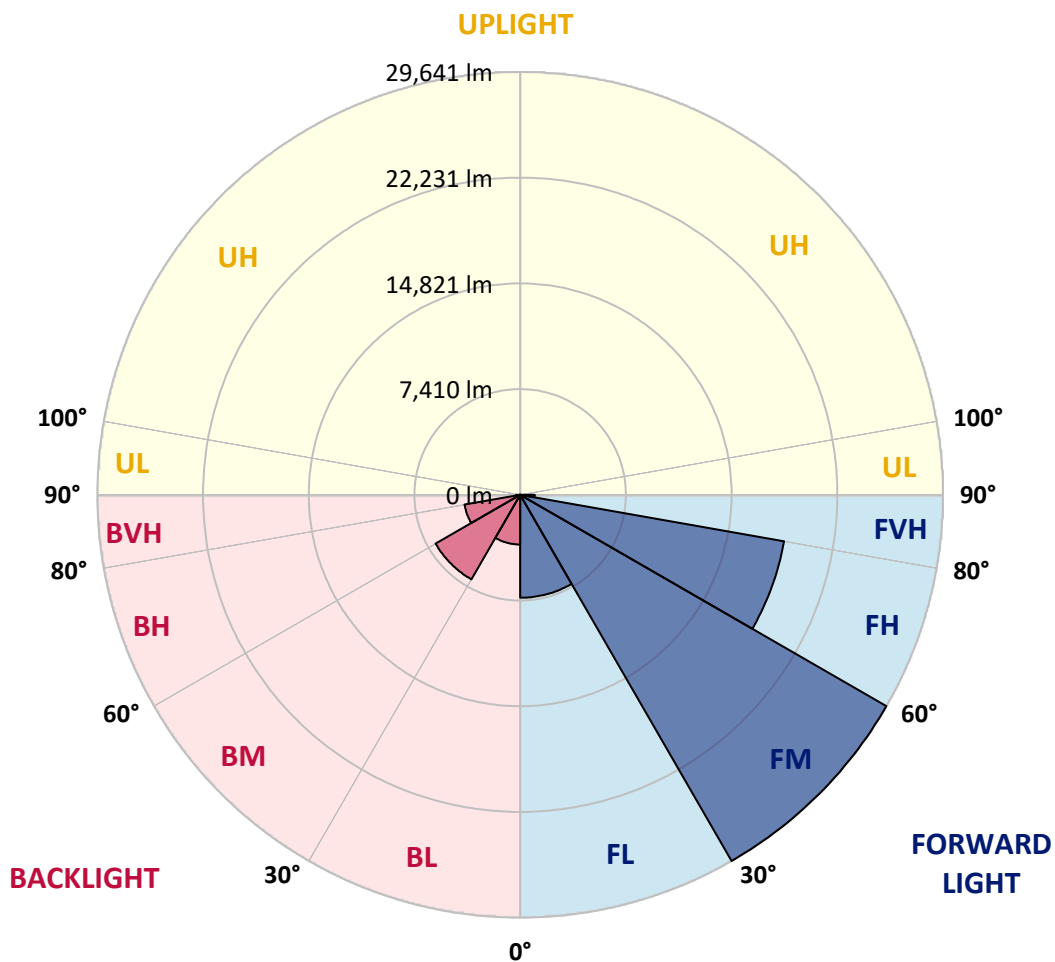
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7213.9	10.1			
FM	(30°-60°)	29641.0	41.6			
FH	(60°-80°)	18786.2	26.4			G5
FVH	(80°-90°)	1017.3	1.4			G5
BL	(0°-30°)	3483.7	4.9	B4/5000		
BM	(30°-60°)	6844.2	9.6	B4/8500		
BH	(60°-80°)	3961.8	5.6	B4/5000		G4/5000
BVH	(80°-90°)	280.8	0.4			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1
2.5°	13298.4	13210.3	13172.5	13227.9	12858.0	12865.6	12686.9	12659.2	12573.7	12452.9	12319.5
5°	14058.3	13955.1	13902.3	13935.0	13545.0	13477.0	13185.1	13041.7	12873.1	12722.1	12432.8
7.5°	14788.0	14682.3	14642.0	14624.4	14153.9	14050.7	13678.3	13424.2	13195.2	13001.4	12608.9
10°	15522.7	15414.5	15331.5	15354.1	14860.9	14677.3	14247.0	13897.2	13602.8	13351.2	12810.2
12.5°	16252.4	16121.6	16031.0	16031.0	15545.4	15366.7	14883.6	14435.7	14060.8	13743.7	13064.3
15°	16999.8	16828.7	16808.5	16808.5	16292.7	16076.3	15600.7	15105.0	14644.6	14236.9	13371.3
17.5°	17772.2	17555.8	17550.8	17583.5	17110.5	16866.4	16418.5	15955.5	15369.2	14853.4	13746.3
20°	18280.5	18086.8	18041.5	18139.6	17767.2	17608.7	17128.1	16803.5	16239.9	15625.9	14229.4
22.5°	18668.0	18549.8	18592.5	18753.6	18572.4	18436.5	17930.8	17638.9	17130.6	16501.5	14881.1
25°	19058.0	18980.0	19078.2	19362.5	19377.6	19415.4	18992.6	18620.2	18147.2	17586.0	15729.1
27.5°	18937.3	18914.6	19211.5	19797.8	20119.9	20291.0	20054.5	19923.6	19490.8	18899.5	16795.9
30°	19025.3	18970.0	19327.3	20069.6	20786.7	21282.4	21282.4	21579.3	21390.6	20796.8	18424.0
32.5°	18763.6	18660.5	19070.6	20135.0	21368.0	22331.7	22759.4	23811.2	24140.9	23927.0	21652.3
35°	17558.4	17636.4	18439.1	19873.3	21768.0	23358.3	24490.6	26745.2	27759.2	28000.8	25368.8
37.5°	16806.0	16838.7	17656.5	19445.5	21909.0	24367.3	26385.4	30132.0	31568.8	31717.3	28629.8
40°	15769.3	15892.6	16808.5	18871.8	21828.4	25220.3	28426.0	33471.1	35068.9	34945.6	31483.3
42.5°	14951.5	14986.8	15786.9	17961.0	21476.2	25899.7	30484.3	36503.2	38176.5	37831.8	34304.0
45°	13932.5	13997.9	14755.3	16828.7	20849.6	26244.4	32260.8	39346.5	40878.9	40448.7	36747.3
47.5°	12699.5	12986.3	13779.0	15608.3	19787.8	26209.2	33765.5	41807.4	43556.2	42894.4	39032.0
50°	10228.5	10578.3	12163.5	14508.7	18396.3	25716.0	34963.2	44517.4	46014.6	45347.8	41118.0
52.5°	8935.2	9003.1	9810.8	13273.2	16765.7	24613.9	35778.5	46756.9	48317.0	47614.9	43123.4
55°	8351.4	8421.9	8829.5	11272.8	15268.6	22661.3	36077.9	48893.2	50277.1	49471.9	44776.6
57.5°	7840.6	7863.3	8343.9	9534.1	13841.9	20089.7	35446.4	50674.7	51859.8	50765.3	45924.0
60°	7256.9	7347.4	7820.5	8703.7	12234.0	17102.9	33282.4	51814.5	52934.3	51960.5	47114.2
62°	6929.7	6952.4	7322.3	8187.9	10988.4	14944.0	30587.5	51880.0	53311.7	52695.2	47846.4
62.5°	6834.1	6849.2	7199.0	8057.0	10731.8	14516.2	29852.7	51827.1	53289.1	52823.6	48007.5
65°	6285.6	6320.8	6635.3	7438.0	9607.0	12848.0	26410.5	50964.0	52803.4	52607.2	47992.4
67.5°	5618.8	5628.8	5963.5	6685.7	8447.0	11280.3	22183.2	49313.4	50425.6	50171.4	45891.3
70°	4594.7	4778.4	5143.2	5779.8	6987.6	9357.9	16873.9	44172.7	45997.0	46248.6	42127.0
72.5°	3492.5	3480.0	3608.3	4051.2	5090.4	7188.9	11391.0	37011.5	41238.8	42600.0	37972.7
75°	2156.4	2239.5	2777.9	3132.7	3648.6	5070.2	7141.1	25763.8	35262.7	37615.4	33564.2
77.5°	1675.8	1690.9	1970.2	2584.2	2989.3	3593.2	4453.8	14038.1	22105.2	27955.5	26141.3
80°	1275.7	1303.4	1487.1	1620.5	2103.6	2189.1	2971.7	7261.9	10067.5	14101.0	17560.9
82.5°	770.0	812.7	983.9	1061.9	1160.0	1097.1	1597.8	3917.8	5581.0	7216.6	8942.7
85°	387.5	465.5	654.2	619.0	525.9	485.6	684.4	1894.7	2667.2	3530.3	4104.0
87.5°	98.1	118.3	153.5	183.7	156.0	128.3	186.2	513.3	528.4	505.8	1416.6
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°	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1	12254.1
2.5°	12274.2	12171.1	11982.4	11874.2	11604.9	11501.8	11308.0	11378.5	11335.7	11292.9	11295.4
5°	12294.4	12108.2	11748.4	11489.2	11099.2	10900.4	10646.2	10606.0	10495.3	10427.3	10434.9
7.5°	12337.2	12070.4	11562.2	11149.5	10600.9	10288.9	9949.2	9891.4	9725.3	9649.8	9659.9
10°	12445.4	12130.8	11441.4	10835.0	10216.0	9783.2	9385.6	9257.3	9098.7	9013.2	9008.2
12.5°	12611.4	12221.4	11270.3	10595.9	9843.6	9282.4	8824.5	8618.1	8391.7	8316.2	8323.7
15°	12875.6	12337.2	11126.8	10266.3	9393.1	8809.4	8243.2	7994.1	7755.1	7667.0	7659.5
17.5°	13197.7	12442.8	11026.2	9878.8	9003.1	8303.6	7805.4	7465.7	7063.1	7005.2	6942.3
20°	13517.3	12654.2	10935.6	9597.0	8540.1	7795.3	7143.6	6796.4	6220.2	6003.8	5925.8
22.5°	13982.8	12988.9	10923.0	9262.3	8074.6	7239.2	6361.1	5799.9	5165.9	4798.5	4718.0
25°	14604.3	13356.2	10955.7	9008.2	7553.8	6532.2	5347.0	4536.8	3932.9	3517.7	3432.2
27.5°	15412.0	13857.0	11053.9	8728.9	7080.7	5684.2	4209.7	3376.8	2866.0	2518.8	2438.2
30°	16602.2	14697.4	11207.4	8469.7	6391.3	4579.6	3095.0	2433.2	2035.6	1821.8	1819.2
32.5°	19380.1	16574.5	11295.4	8147.6	5749.6	3462.4	2226.9	1761.4	1444.3	1363.8	1431.7
35°	22565.7	19234.2	11974.8	7800.4	4745.6	2546.4	1590.3	1253.1	1122.2	1142.4	1180.1
37.5°	25504.7	21790.7	13011.5	7236.7	3799.5	1794.1	1142.4	996.4	968.8	1041.7	1109.7
40°	28106.5	24000.0	13899.7	6617.7	2687.4	1253.1	915.9	920.9	893.3	926.0	948.6
42.5°	30657.9	26048.2	14838.3	5784.8	1791.6	926.0	827.8	873.1	840.4	845.5	812.7
45°	33194.3	28209.6	15243.4	4755.7	1200.2	802.7	775.0	827.8	825.3	805.2	757.4
47.5°	35383.5	29699.3	15756.7	3588.2	893.3	729.7	737.3	775.0	800.2	764.9	742.3
50°	37265.6	31279.5	15361.7	2375.3	797.6	681.9	709.6	709.6	749.8	689.5	661.8
52.5°	39064.7	32852.1	14347.6	1565.1	732.2	649.2	676.9	659.3	676.9	616.5	608.9
55°	40144.2	33664.9	13122.2	1220.4	692.0	621.5	634.1	629.1	614.0	551.1	563.6
57.5°	41331.9	34600.9	11597.4	1024.1	674.4	588.8	591.3	583.8	538.5	495.7	498.2
60°	42280.5	35300.4	9966.9	903.3	654.2	571.2	536.0	523.4	460.5	435.3	437.8
62°	42944.8	35333.1	8545.2	840.4	629.1	558.6	503.2	475.6	405.1	385.0	382.5
62.5°	43017.7	35209.8	8197.9	825.3	619.0	553.6	500.7	460.5	390.0	374.9	369.9
65°	42746.0	33838.5	6539.7	742.3	576.2	523.4	465.5	400.1	334.7	314.5	307.0
67.5°	40722.9	31382.6	4994.7	674.4	523.4	503.2	430.3	352.3	296.9	271.8	266.7
70°	36777.5	28058.7	3565.5	588.8	470.5	458.0	432.8	322.1	274.3	239.0	234.0
72.5°	32394.2	24520.8	2425.7	523.4	417.7	377.4	319.6	304.5	256.7	211.4	206.3
75°	27568.0	19528.6	1726.1	450.4	359.8	319.6	269.2	281.8	241.6	188.7	183.7
77.5°	21151.6	14362.7	1280.8	369.9	279.3	259.2	226.5	249.1	218.9	171.1	168.6
80°	14443.3	9919.0	910.9	279.3	183.7	183.7	191.2	213.9	193.8	153.5	151.0
82.5°	8119.9	5221.2	538.5	201.3	125.8	125.8	148.5	173.6	161.0	133.4	130.8
85°	3364.2	1889.7	284.3	125.8	83.0	85.6	105.7	128.3	125.8	105.7	103.2
87.5°	1170.1	475.6	83.0	42.8	35.2	37.7	42.8	60.4	60.4	52.8	55.4
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)