

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: P453404

Luminaire Tested: **GALN-SA4B-830-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453404
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-830-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18305 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

Input Watts (W): 164
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

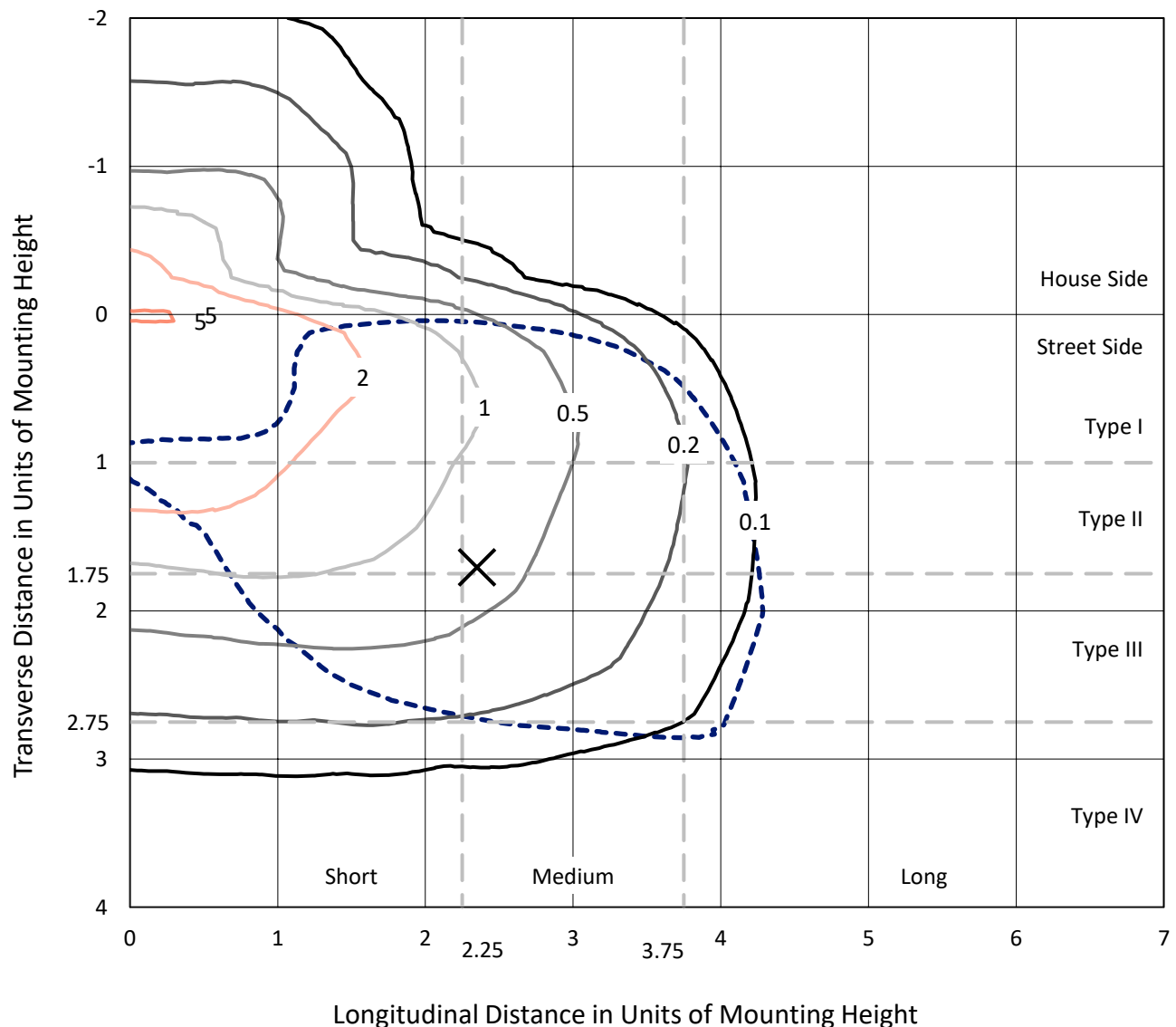


REPORT NUMBER: P453404

CATALOG NUMBER: GALN-SA4B-830-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

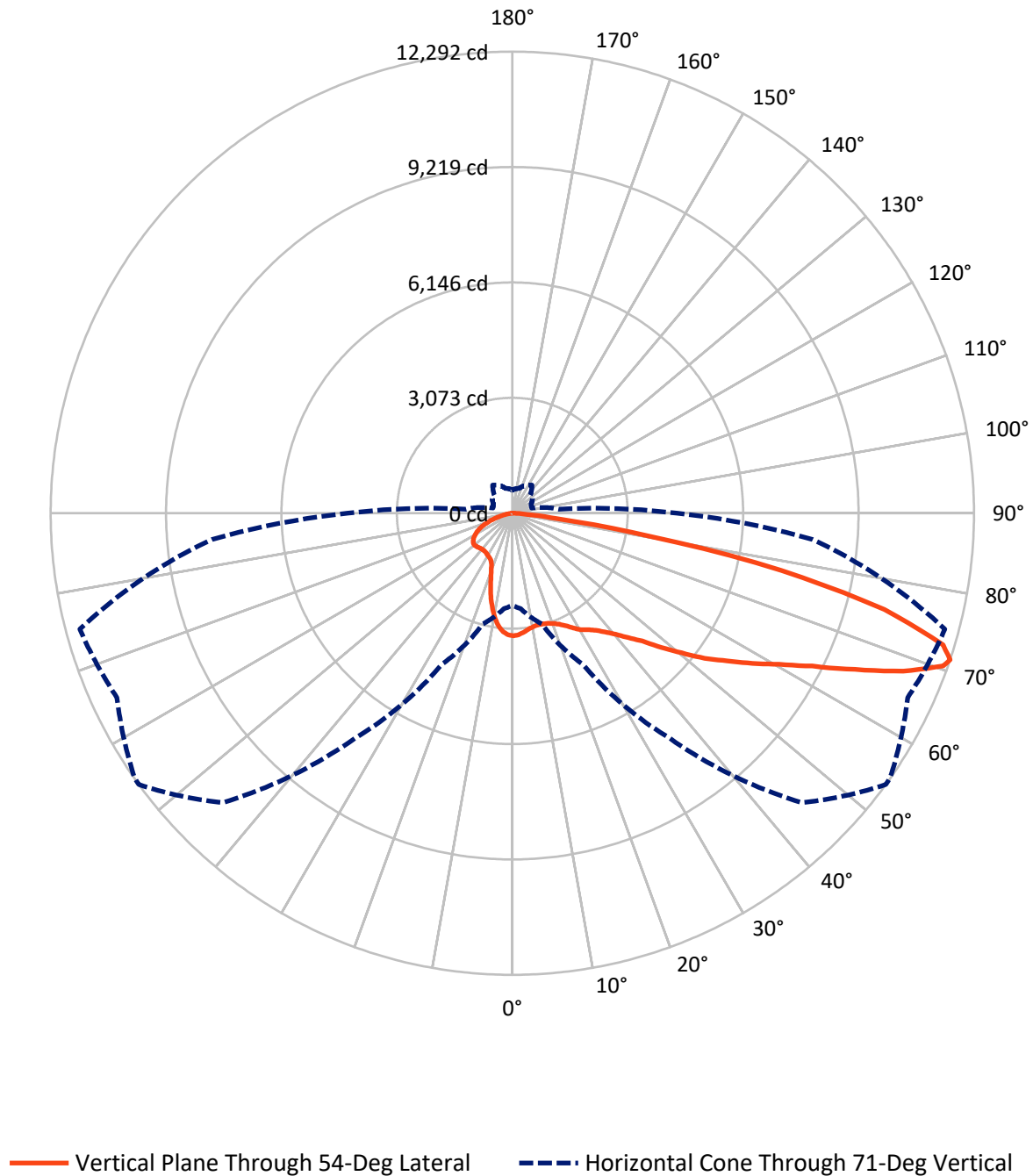


Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Medium - N/A

REPORT NUMBER: P453404

CATALOG NUMBER: GALN-SA4B-830-U-T3R

Luminous Intensity Polar Plot



REPORT NUMBER: P453404

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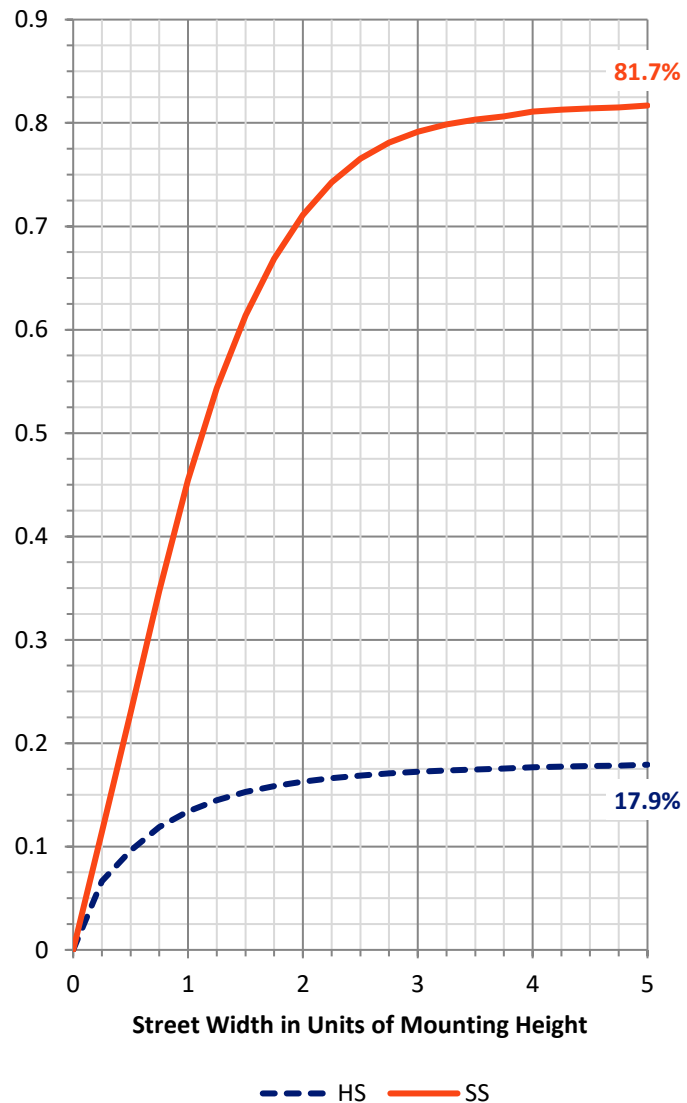
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3304.9	0.0	3304.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	15000.1	0.0	15000.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	18305.0	0.0	18305.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.0	1.6
10°-20°	768.5	4.2
20°-30°	1279.6	7.0
30°-40°	1892.1	10.3
40°-50°	2665.0	14.6
50°-60°	3568.6	19.5
60°-70°	4497.9	24.6
70°-80°	3072.1	16.8
80°-90°	270.2	1.5
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°	18305.0	100.0
0°-180°	18305.0	100.0

Coefficient of Utilization



REPORT NUMBER: P453404

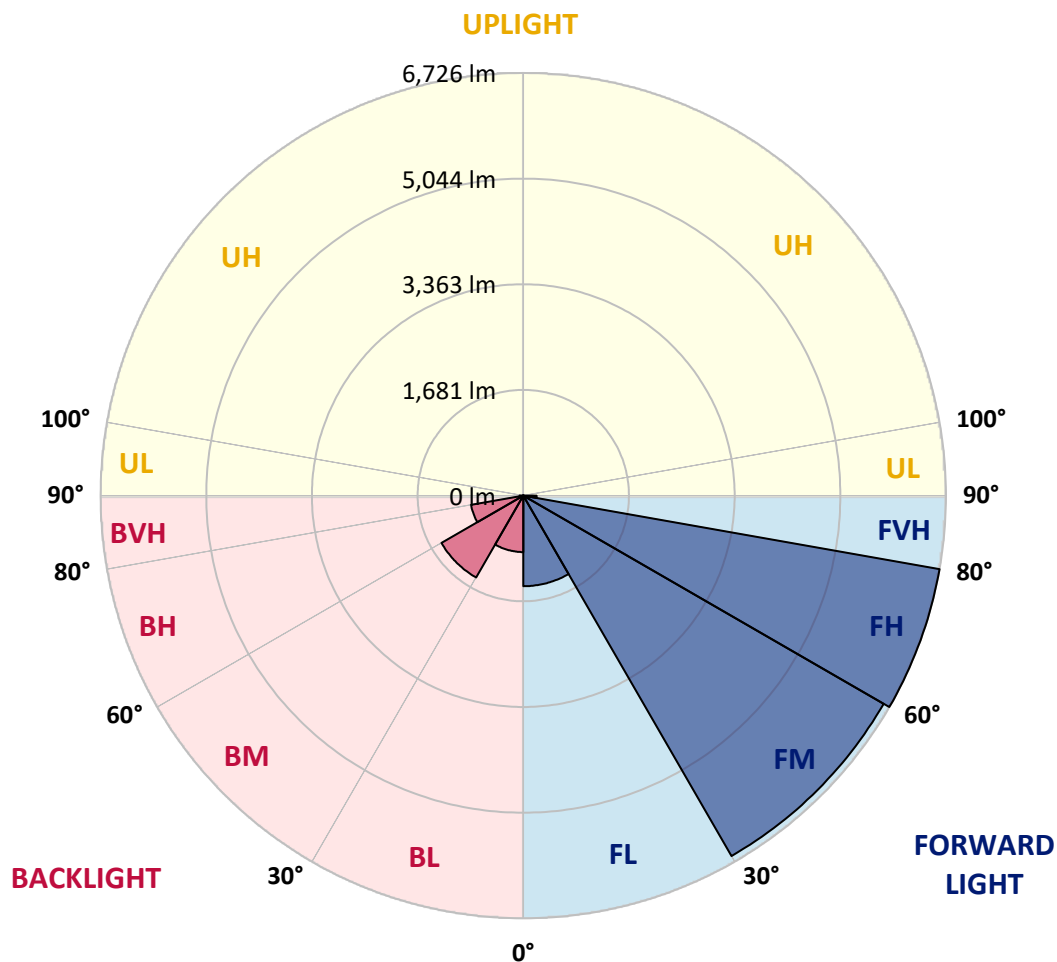
CATALOG NUMBER: GALN-SA4B-830-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1440.9	7.9			
FM	(30°-60°)	6622.1	36.2			
FH	(60°-80°)	6726.0	36.7			G3/7500
FVH	(80°-90°)	211.2	1.2			G2/225
BL	(0°-30°)	898.2	4.9	B2/1000		
BM	(30°-60°)	1503.6	8.2	B2/2500		
BH	(60°-80°)	844.1	4.6	B2/1000		G2/1000
BVH	(80°-90°)	59.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium





REPORT NUMBER: P453404

CATALOG NUMBER: GALN-SA4B-830-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9
2.5°	3155.1	3170.0	3173.9	3183.8	3204.6	3221.4	3238.2	3236.2	3260.0	3269.8	3278.7
5°	3014.7	3018.7	3033.5	3053.3	3089.9	3136.4	3181.8	3182.8	3241.2	3287.6	3310.4
7.5°	2911.9	2924.8	2934.6	2955.4	2994.0	3044.4	3116.6	3122.5	3226.3	3318.3	3366.7
10°	2844.7	2859.5	2870.4	2896.1	2934.6	2991.0	3069.1	3080.0	3215.5	3366.7	3451.8
12.5°	2783.4	2798.2	2808.1	2841.7	2892.1	2961.3	3049.3	3062.2	3219.4	3423.1	3544.7
15°	2820.9	2832.8	2828.8	2838.7	2872.4	2951.5	3057.3	3070.1	3234.2	3477.5	3636.7
17.5°	2988.0	2997.9	2965.3	2927.7	2911.9	2970.2	3082.0	3095.8	3263.9	3533.8	3730.6
20°	3234.2	3260.9	3189.7	3105.7	3029.6	3037.5	3133.4	3148.2	3305.4	3590.2	3826.5
22.5°	3554.6	3574.4	3487.4	3348.9	3208.5	3136.4	3210.5	3219.4	3367.7	3663.4	3931.3
25°	3931.3	3943.2	3822.6	3644.6	3441.9	3305.4	3316.3	3332.1	3470.6	3746.4	4024.3
27.5°	4297.2	4334.7	4195.3	3977.8	3710.8	3483.4	3461.7	3471.5	3582.3	3792.9	4088.5
30°	4731.2	4728.3	4580.9	4328.8	3986.7	3677.2	3599.1	3597.1	3642.6	3815.6	4135.0
32.5°	5077.3	5117.8	4973.5	4698.6	4302.1	3877.9	3694.0	3690.1	3689.1	3855.2	4204.2
35°	5470.8	5476.8	5344.3	5067.4	4643.2	4130.1	3826.5	3806.7	3784.0	3940.2	4298.2
37.5°	5822.8	5850.5	5728.9	5418.4	4978.4	4392.1	4008.4	3995.6	3926.4	4087.5	4448.4
40°	6097.7	6118.5	6045.3	5749.7	5308.7	4674.9	4239.8	4216.1	4132.0	4328.8	4649.2
42.5°	6187.7	6230.2	6258.9	6113.5	5688.4	5010.1	4524.6	4494.9	4430.6	4694.6	4880.5
45°	6194.6	6261.8	6413.1	6420.0	6070.0	5411.5	4856.8	4836.0	4831.1	5163.3	5205.8
47.5°	6142.2	6210.4	6464.5	6602.0	6410.1	5816.9	5336.4	5303.7	5306.7	5742.7	5570.7
50°	6015.6	6096.7	6405.2	6718.6	6676.1	6238.1	5842.6	5831.7	5893.0	6404.2	5949.4
52.5°	5777.3	5875.2	6343.9	6791.8	6873.9	6601.0	6418.1	6387.4	6542.6	7122.1	6363.7
55°	5117.8	5265.2	6119.5	6832.3	7061.7	6948.0	6936.2	6991.5	7197.2	7905.2	6819.5
57.5°	4773.7	4884.5	5632.0	6839.3	7299.0	7351.5	7541.3	7555.1	7915.0	8736.7	7334.6
60°	4585.9	4683.8	5365.0	6793.8	7630.3	7850.8	8160.3	8209.7	8616.1	9637.5	7868.6
62.5°	4421.7	4505.8	5204.8	6636.6	8004.0	8591.4	8962.1	8985.9	9412.0	10632.2	8395.6
65°	4035.1	4131.1	4882.5	6479.4	8326.4	9516.8	10026.1	9998.4	10259.4	11490.4	8725.8
67.5°	3514.1	3635.7	4280.4	5936.5	8485.6	10528.3	11224.4	11189.8	11095.9	12053.0	8820.8
70°	2848.6	2913.9	3510.1	4998.2	7849.8	11059.3	12170.7	12134.1	11614.0	12127.2	8371.9
71°	2451.1	2553.0	3056.3	4439.5	7320.8	10897.2	12292.3	12282.4	11615.0	11922.5	8033.7
72.5°	1913.3	1975.5	2420.5	3439.9	6222.3	9975.6	11991.7	12029.3	11362.9	11354.0	7336.6
75°	1210.2	1237.9	1518.7	2025.0	3414.2	7064.7	10236.7	10338.5	10089.3	9293.4	5456.0
77.5°	703.0	738.6	909.7	1193.4	1475.2	3834.4	7324.8	7435.5	7010.3	5116.8	2233.6
80°	409.3	448.9	599.2	693.1	677.3	1422.8	3729.6	3918.5	3035.5	1292.3	626.9
82.5°	227.4	254.1	421.2	422.2	360.9	464.7	1173.7	1228.0	866.2	521.1	256.1
85°	165.1	186.9	271.9	246.2	173.0	199.7	408.4	428.1	350.0	219.5	83.1
87.5°	58.3	83.1	149.3	118.7	47.5	41.5	117.7	95.9	89.0	61.3	18.8
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: P453404

CATALOG NUMBER: GALN-SA4B-830-U-T3R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9	3265.9
2.5°	3283.7	3285.7	3275.8	3258.0	3240.2	3217.4	3191.7	3172.0	3163.1	3162.1	3161.1
5°	3319.3	3324.2	3286.6	3231.3	3170.0	3094.8	3030.6	2957.4	2938.6	2908.9	2917.8
7.5°	3376.6	3373.7	3299.5	3181.8	3038.5	2879.3	2744.8	2666.7	2585.6	2562.9	2563.9
10°	3458.7	3439.9	3299.5	3081.0	2841.7	2605.4	2417.5	2298.9	2234.6	2181.2	2161.4
12.5°	3545.7	3498.2	3267.9	2939.6	2588.6	2298.9	2097.2	1937.0	1895.5	1852.0	1852.9
15°	3628.8	3549.7	3205.6	2740.9	2315.7	1971.6	1775.8	1679.9	1667.1	1672.0	1671.0
17.5°	3703.9	3586.2	3110.6	2519.4	1997.3	1690.8	1587.0	1593.9	1628.5	1653.2	1656.2
20°	3780.0	3608.0	2969.3	2222.7	1696.7	1520.7	1524.7	1579.1	1631.5	1665.1	1670.0
22.5°	3852.2	3617.9	2803.1	1936.0	1479.2	1448.5	1506.9	1565.2	1616.6	1649.3	1654.2
25°	3899.7	3595.1	2567.8	1636.4	1372.4	1422.8	1484.1	1533.6	1577.1	1610.7	1618.6
27.5°	3912.5	3522.0	2276.1	1394.2	1323.0	1398.1	1454.5	1491.1	1524.7	1556.3	1562.2
30°	3905.6	3414.2	1955.8	1251.8	1294.3	1369.4	1412.9	1439.6	1480.2	1504.9	1509.8
32.5°	3894.7	3288.6	1621.6	1175.6	1270.6	1342.7	1368.4	1392.2	1391.2	1381.3	1388.2
35°	3898.7	3138.3	1350.6	1130.2	1249.8	1323.0	1344.7	1315.1	1230.0	1226.1	1222.1
37.5°	3919.5	2990.0	1153.9	1098.5	1238.9	1320.0	1331.9	1195.4	1120.3	1085.7	1076.8
40°	3972.8	2817.0	1024.4	1074.8	1237.9	1342.7	1273.5	1135.1	990.7	923.5	918.6
42.5°	4044.0	2646.9	945.3	1060.0	1249.8	1377.3	1249.8	1050.1	892.9	853.3	847.4
45°	4149.8	2452.1	901.8	1053.0	1267.6	1390.2	1241.9	987.8	853.3	821.7	821.7
47.5°	4269.5	2266.2	878.0	1048.1	1290.3	1381.3	1171.7	968.0	834.5	838.5	857.3
50°	4388.1	2105.1	860.2	1037.2	1310.1	1376.4	1143.0	967.0	839.5	889.9	923.5
52.5°	4525.6	1991.4	838.5	1019.4	1310.1	1344.7	1134.1	986.8	853.3	868.1	883.0
55°	4691.7	1955.8	810.8	980.9	1286.4	1265.6	1129.2	1015.5	863.2	828.6	834.5
57.5°	4911.2	2013.1	784.1	932.4	1232.0	1183.5	1127.2	1023.4	840.4	811.8	805.8
60°	5166.3	2126.8	776.2	883.0	1157.8	1113.3	1115.3	1000.6	808.8	779.1	784.1
62.5°	5345.3	2195.1	771.2	845.4	1076.8	1036.2	1086.7	972.9	795.0	769.3	774.2
65°	5345.3	2112.0	725.8	788.0	972.0	943.3	1052.0	938.3	777.2	747.5	742.6
67.5°	5142.6	1869.8	656.5	702.0	856.3	837.5	1003.6	896.8	750.5	727.7	715.9
70°	4614.6	1417.9	569.5	601.2	709.9	726.7	941.3	840.4	706.0	678.3	660.5
71°	4382.2	1235.0	532.9	549.8	653.6	678.3	911.6	816.7	686.2	646.7	615.0
72.5°	3934.3	1040.2	477.6	484.5	558.7	603.1	849.3	771.2	648.6	592.3	556.7
75°	2989.0	759.4	384.6	380.7	413.3	478.6	718.8	687.2	568.5	492.4	471.6
77.5°	1291.3	413.3	287.7	290.7	280.8	362.9	565.6	590.3	487.5	400.4	381.7
80°	391.6	238.3	196.8	200.7	187.9	243.2	398.5	462.7	391.6	311.5	285.8
82.5°	200.7	142.4	134.5	132.5	119.6	137.4	241.3	316.4	279.8	194.8	172.0
85°	87.0	76.1	66.2	64.3	56.4	49.4	86.0	158.2	148.3	108.8	103.8
87.5°	21.8	19.8	12.9	11.9	6.9	1.0	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)