

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: P299481

Luminaire Tested: **GLNA-AF-05-LED-E1-5NQ-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299481
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-5NQ-8030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16441.1 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

Input Watts (W): 162
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

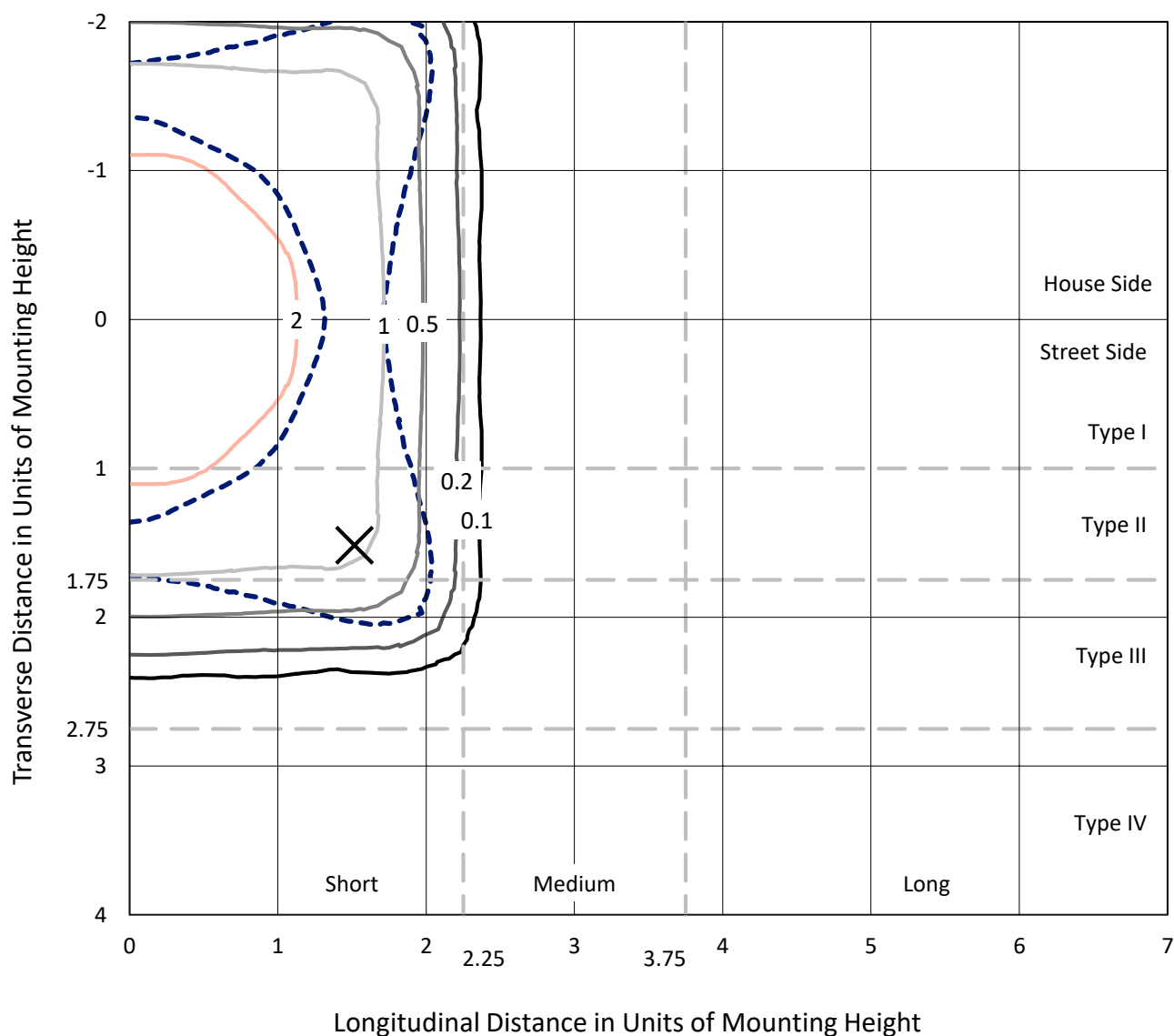


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

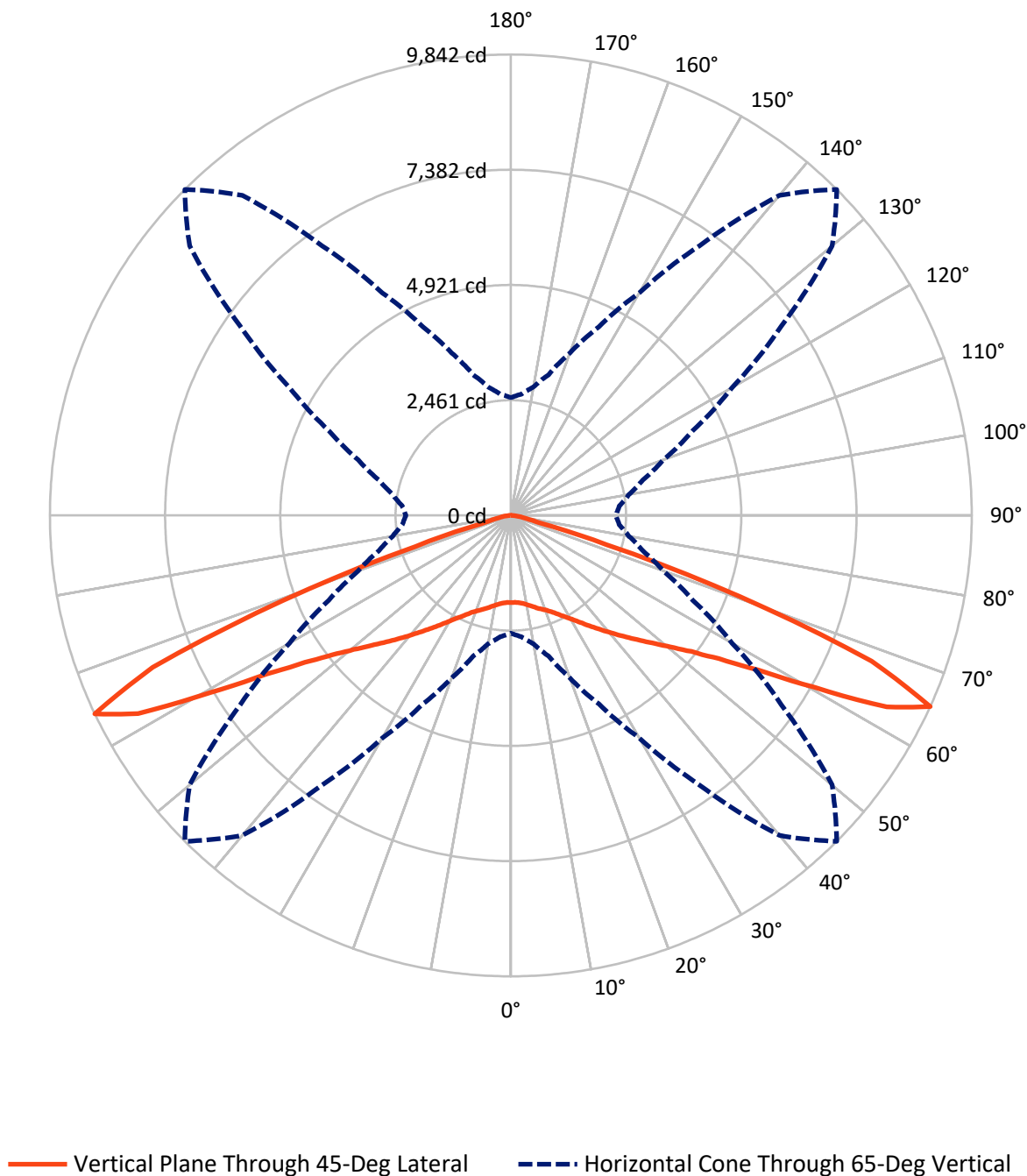


Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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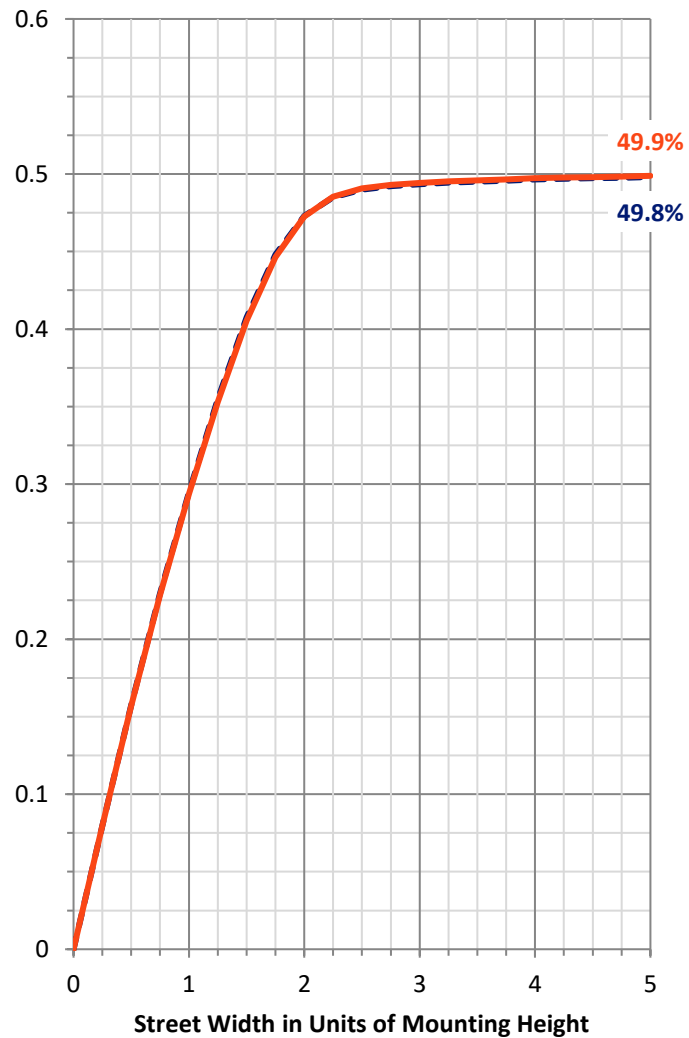
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8220.6	0.0	8220.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8220.6	0.0	8220.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	16441.1	0.0	16441.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.3	1.1
10°-20°	581.5	3.5
20°-30°	1087.4	6.6
30°-40°	1839.0	11.2
40°-50°	3007.0	18.3
50°-60°	4781.6	29.1
60°-70°	4322.2	26.3
70°-80°	547.0	3.3
80°-90°	94.1	0.6
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°	16441.1	100.0
0°-180°	16441.1	100.0

Coefficient of Utilization



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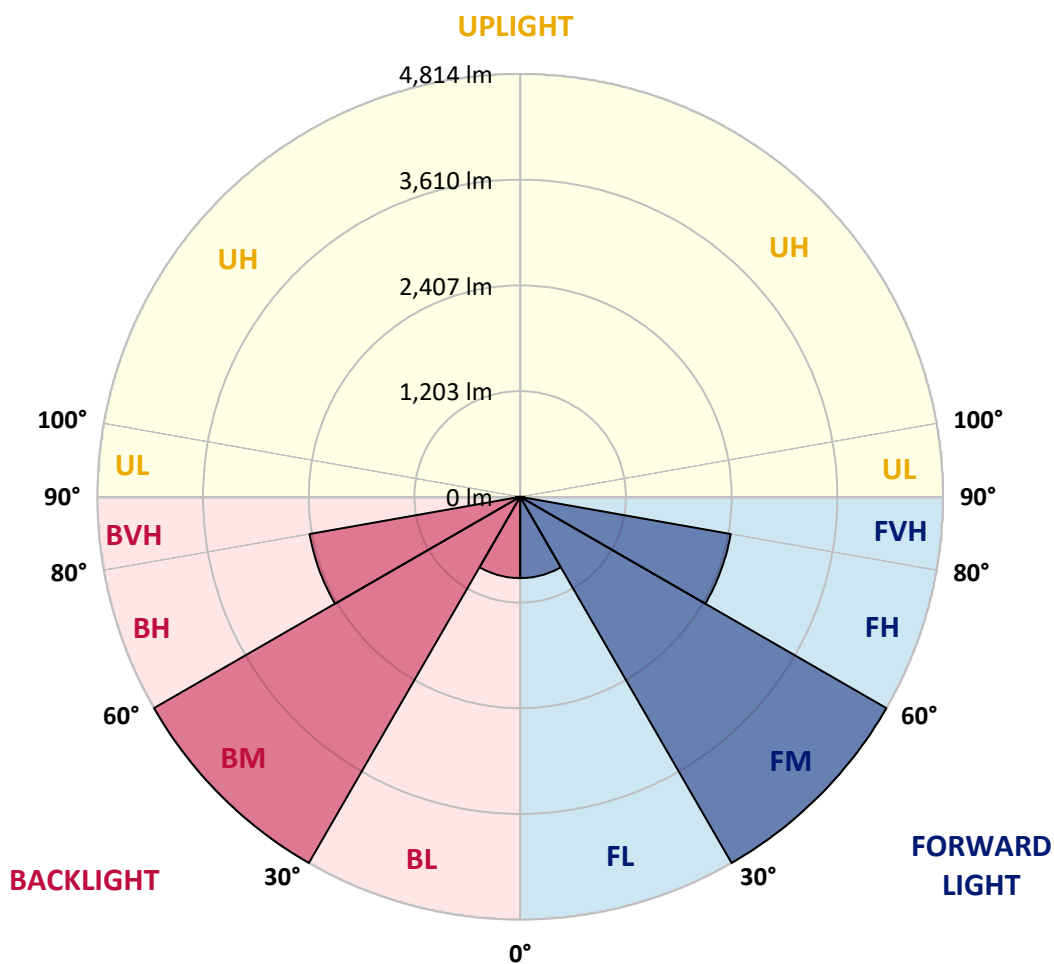
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	925.1	5.6			
FM	(30°-60°)	4813.8	29.3			
FH	(60°-80°)	2434.6	14.8			G2/5000
FVH	(80°-90°)	47.1	0.3			G1/100
BL	(0°-30°)	925.1	5.6	B2/1000		
BM	(30°-60°)	4813.8	29.3	B3/5000		
BH	(60°-80°)	2434.6	14.8	B3/2500		G2/5000
BVH	(80°-90°)	47.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3
2.5°	1861.9	1863.4	1864.9	1863.4	1864.9	1862.6	1861.1	1863.4	1861.1	1858.8	1860.3
5°	1878.0	1878.8	1878.8	1876.5	1878.8	1877.3	1875.0	1878.0	1875.7	1873.4	1875.0
7.5°	1905.0	1908.1	1905.8	1903.4	1905.0	1903.4	1901.9	1902.7	1901.9	1899.6	1900.4
10°	1941.2	1943.5	1941.9	1941.2	1942.7	1941.9	1940.4	1939.6	1940.4	1938.1	1938.1
12.5°	1985.1	1984.3	1983.5	1984.3	1986.6	1986.6	1985.8	1986.6	1988.1	1988.9	1987.4
15°	2028.2	2029.7	2029.7	2029.7	2034.3	2038.2	2040.5	2042.0	2045.1	2045.9	2042.8
17.5°	2082.1	2082.1	2081.3	2082.1	2086.7	2092.9	2095.2	2098.3	2101.3	2103.6	2099.8
20°	2142.1	2143.7	2143.7	2145.2	2151.4	2158.3	2158.3	2159.9	2158.3	2159.9	2157.5
22.5°	2215.3	2219.9	2219.9	2220.7	2226.8	2235.3	2233.0	2235.3	2231.5	2234.5	2231.5
25°	2310.8	2317.7	2316.2	2316.2	2320.8	2326.2	2326.9	2331.6	2330.8	2334.6	2332.3
27.5°	2418.6	2429.4	2432.4	2431.7	2434.7	2440.1	2441.7	2447.1	2444.0	2447.1	2445.5
30°	2547.9	2552.6	2558.7	2561.0	2564.9	2570.3	2570.3	2571.0	2567.2	2571.8	2574.1
32.5°	2681.9	2690.4	2696.5	2710.4	2717.3	2721.2	2720.4	2722.0	2718.1	2724.3	2728.9
35°	2859.0	2865.2	2875.2	2886.0	2895.2	2894.4	2892.1	2892.9	2892.9	2898.3	2902.9
37.5°	3072.3	3073.8	3086.9	3102.3	3107.0	3102.3	3088.5	3085.4	3078.5	3085.4	3093.1
40°	3297.9	3303.3	3329.5	3339.5	3341.8	3333.3	3313.3	3301.8	3286.4	3294.8	3305.6
42.5°	3534.3	3545.1	3569.0	3586.7	3594.4	3589.0	3561.3	3543.5	3523.5	3528.1	3538.9
45°	3796.1	3809.2	3843.1	3860.0	3874.6	3866.2	3839.2	3812.3	3780.7	3783.0	3800.0
47.5°	4088.7	4101.8	4145.7	4174.2	4181.9	4180.3	4150.3	4113.3	4070.2	4068.7	4083.3
50°	4416.7	4429.8	4484.5	4528.4	4550.7	4548.4	4513.0	4460.6	4408.3	4409.0	4427.5
52.5°	4737.0	4753.2	4810.2	4885.7	4929.5	4961.1	4939.6	4890.3	4826.4	4827.9	4844.8
55°	5037.3	5064.3	5129.7	5232.2	5313.8	5402.3	5427.7	5426.2	5387.7	5398.5	5415.4
57.5°	5182.9	5222.9	5323.8	5485.5	5651.8	5832.0	5984.4	6098.4	6146.9	6220.1	6203.1
60°	4907.2	4971.1	5119.7	5357.7	5686.5	6062.2	6464.9	6858.4	7194.1	7447.4	7301.9
62.5°	4017.9	4101.0	4281.2	4586.1	5083.5	5684.9	6455.7	7385.8	8399.2	9010.5	8574.0
65°	2514.1	2600.3	2783.6	3110.0	3692.2	4439.8	5485.5	7027.0	8920.5	9842.1	8953.6
67.5°	980.2	1027.2	1126.5	1335.2	1772.5	2437.8	3487.3	5236.8	7501.3	8309.1	7362.0
70°	491.3	495.9	514.4	552.9	646.8	840.1	1278.2	2427.8	4302.0	5196.0	4147.2
72.5°	355.0	355.7	365.0	381.9	412.0	455.1	538.2	743.1	1399.1	2138.3	1311.3
75°	271.8	274.9	280.3	289.5	305.7	327.3	357.3	428.1	530.5	615.2	517.4
77.5°	209.4	215.6	219.5	227.9	237.9	252.6	261.0	288.0	335.0	352.7	347.3
80°	159.4	164.8	173.3	180.2	187.1	194.0	191.0	203.3	227.9	242.6	234.9
82.5°	101.6	107.8	132.4	138.6	141.7	146.3	140.9	141.7	152.5	161.7	152.5
85°	65.5	69.3	83.9	91.6	92.4	95.5	93.2	87.8	87.8	80.1	90.1
87.5°	30.0	30.8	37.7	44.7	46.2	41.6	40.8	39.3	31.6	30.0	32.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3
2.5°	1859.6	1861.1	1861.9	1864.2	1864.9	1864.9	1865.7	1867.3
5°	1874.2	1876.5	1877.3	1880.3	1881.1	1880.3	1881.9	1882.7
7.5°	1900.4	1904.2	1905.8	1908.8	1906.5	1909.6	1910.4	1910.4
10°	1938.9	1942.7	1943.5	1946.6	1945.0	1946.6	1946.6	1945.0
12.5°	1989.7	1990.5	1988.1	1990.5	1987.4	1988.9	1986.6	1985.1
15°	2045.9	2043.6	2038.2	2038.2	2033.6	2034.3	2033.6	2032.8
17.5°	2100.6	2095.9	2092.1	2090.6	2086.7	2085.9	2083.6	2083.6
20°	2160.6	2158.3	2156.0	2152.9	2149.1	2145.2	2144.5	2146.0
22.5°	2233.0	2232.2	2232.2	2230.7	2225.3	2221.5	2219.1	2219.1
25°	2330.0	2323.1	2323.1	2322.3	2320.0	2317.7	2313.1	2315.4
27.5°	2439.4	2435.5	2438.6	2437.8	2435.5	2435.5	2432.4	2432.4
30°	2574.1	2572.6	2577.2	2573.3	2565.6	2564.9	2561.8	2557.9
32.5°	2729.7	2728.1	2735.0	2730.4	2718.1	2711.2	2705.0	2701.9
35°	2902.9	2903.7	2912.1	2909.1	2895.2	2890.6	2879.8	2878.3
37.5°	3092.3	3104.6	3119.3	3122.4	3110.8	3107.7	3096.2	3090.0
40°	3314.9	3331.0	3353.4	3358.7	3346.4	3344.1	3327.9	3319.5
42.5°	3552.0	3579.7	3607.5	3612.1	3599.8	3587.4	3572.0	3565.9
45°	3816.9	3850.0	3886.2	3895.4	3877.0	3862.3	3842.3	3842.3
47.5°	4114.1	4155.7	4196.5	4221.9	4205.0	4189.6	4165.7	4150.3
50°	4465.2	4522.2	4575.3	4601.5	4574.6	4545.3	4503.7	4489.9
52.5°	4905.7	4967.3	5013.5	4999.6	4958.0	4917.2	4871.8	4853.3
55°	5467.8	5488.6	5488.6	5436.2	5353.0	5284.5	5212.9	5189.0
57.5°	6170.8	6090.7	5967.5	5811.2	5614.8	5443.9	5328.4	5273.7
60°	6997.0	6612.0	6176.9	5749.6	5398.5	5109.0	4937.2	4858.7
62.5°	7547.5	6540.4	5668.7	4982.7	4477.6	4128.7	3891.6	3799.2
65°	7054.0	5454.7	4287.4	3466.5	2916.0	2561.0	2326.2	2239.9
67.5°	5166.7	3418.0	2283.1	1636.3	1198.9	956.3	860.1	820.1
70°	2319.2	1203.5	737.7	576.0	496.7	455.8	438.1	432.0
72.5°	699.2	505.9	426.6	385.0	353.4	333.4	318.8	317.2
75°	422.0	351.1	311.9	287.2	267.2	251.0	243.3	241.0
77.5°	294.9	258.0	239.5	221.8	206.4	194.0	187.1	181.7
80°	207.1	189.4	181.0	170.9	160.9	149.4	139.4	134.8
82.5°	138.6	134.8	134.8	128.6	120.1	109.3	89.3	84.7
85°	89.3	88.6	90.1	87.8	81.6	70.1	57.8	54.7
87.5°	41.6	42.4	47.0	46.2	44.7	37.0	29.3	27.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)