

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: P193952

Luminaire Tested: **GLEON-AF-04-LED-E1-T2R-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P193952
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-04-LED-E1-T2R-8030
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20412 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

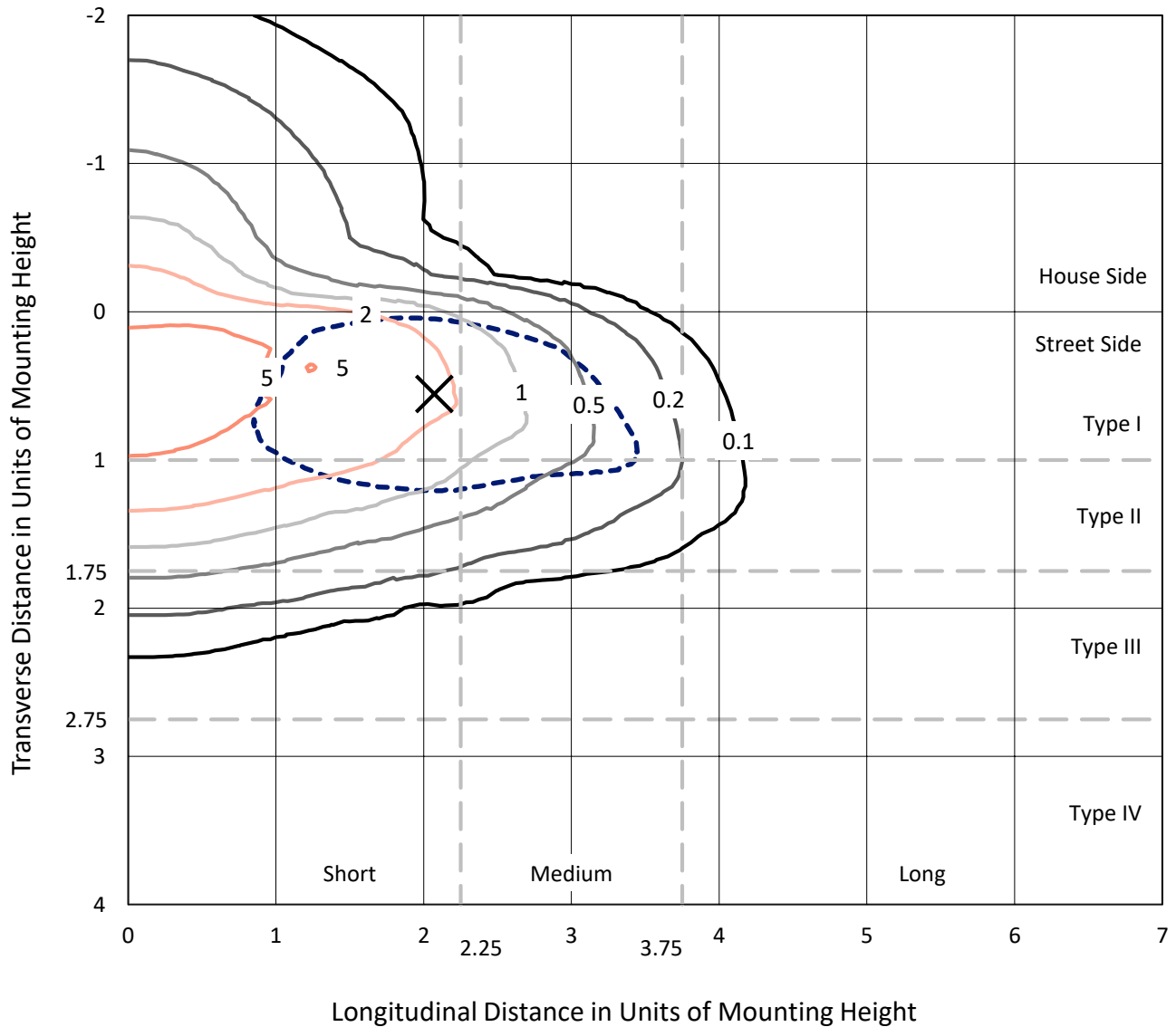
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P193952
 CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-8030

Iso-Footcandle Lines of Horizontal Illumination

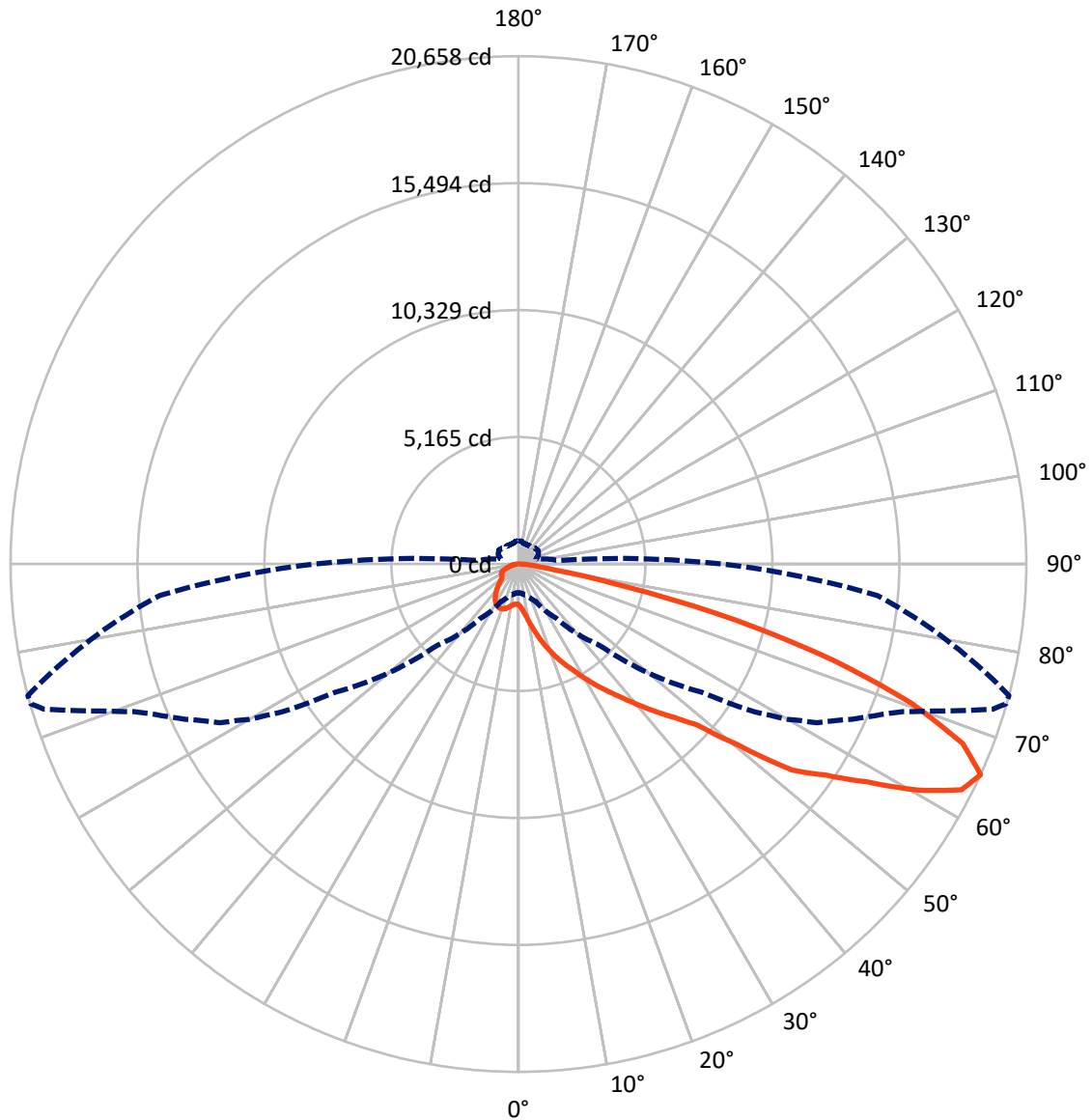
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P193952
CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P193952

CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3147.0	0.0	3147.0
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	17264.9	0.0	17264.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	20412.0	0.0	20412.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.0	1.0
10°-20°	801.1	3.9
20°-30°	1643.7	8.1
30°-40°	2765.4	13.5
40°-50°	3821.0	18.7
50°-60°	4769.8	23.4
60°-70°	4292.3	21.0
70°-80°	1799.3	8.8
80°-90°	314.3	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°	20412.0	100.0
0°-180°	20412.0	100.0



REPORT NUMBER: P193952

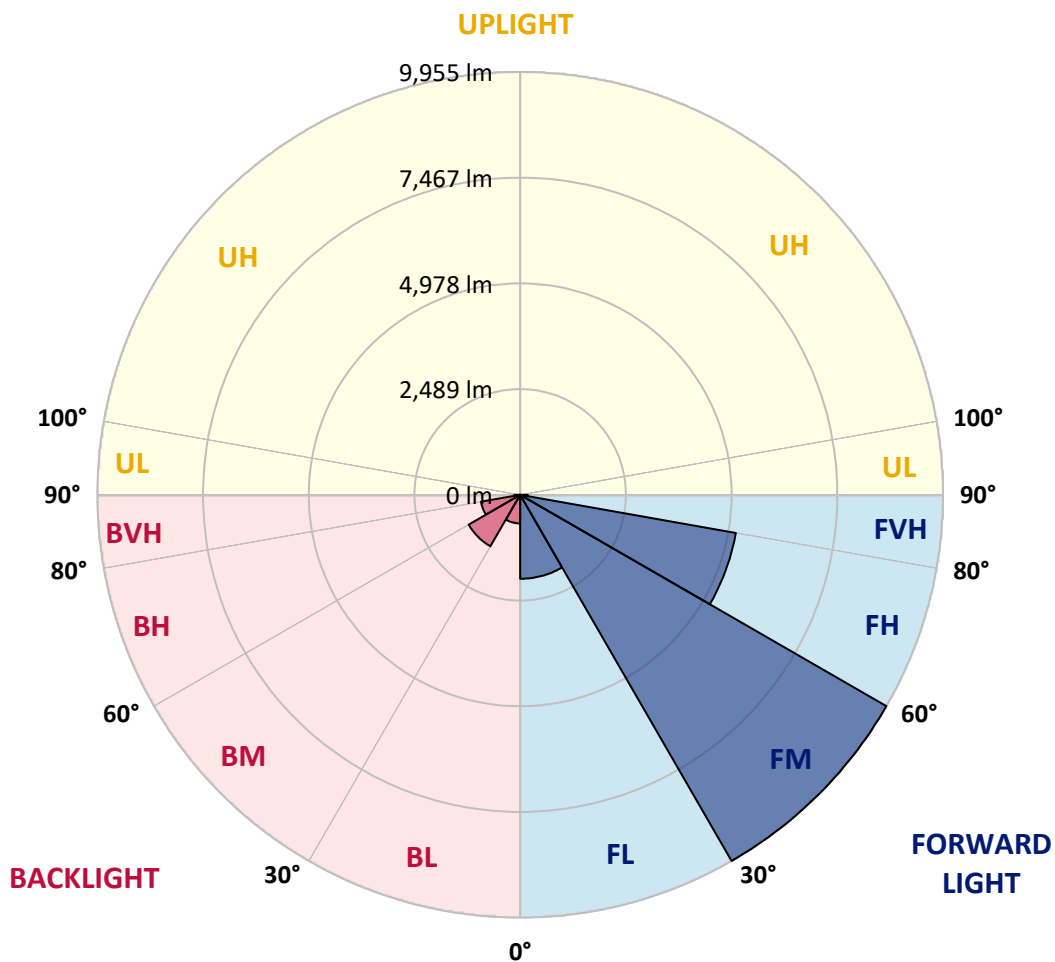
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1976.8	9.7			
FM	(30°-60°)	9955.4	48.8			
FH	(60°-80°)	5156.0	25.3			G3/7500
FVH	(80°-90°)	176.7	0.9			G2/225
BL	(0°-30°)	673.0	3.3	B2/1000		
BM	(30°-60°)	1400.8	6.9	B2/2500		
BH	(60°-80°)	935.6	4.6	B2/1000		G2/1000
BVH	(80°-90°)	137.7	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





REPORT NUMBER: P193952

CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	2106.2	2083.0	2088.8	2050.2	2002.8	1941.0	1872.4	1871.4	1872.4	1865.6	1840.5
5°	2920.6	2892.6	2882.0	2795.0	2667.5	2485.9	2288.8	2267.5	2258.8	2236.6	2185.4
7.5°	3514.8	3499.4	3482.9	3417.2	3301.3	3098.4	2833.7	2788.3	2744.8	2734.2	2676.2
10°	3898.4	3894.5	3859.7	3842.3	3769.9	3594.0	3336.1	3292.6	3245.3	3228.8	3168.0
12.5°	4201.8	4200.8	4184.4	4189.2	4126.4	3998.9	3776.6	3737.0	3702.3	3652.0	3608.5
15°	4411.4	4412.4	4436.5	4463.6	4453.9	4367.9	4159.2	4141.8	4111.9	4077.1	4025.9
17.5°	4583.4	4588.2	4613.3	4662.6	4715.7	4709.0	4543.8	4529.3	4503.2	4455.8	4428.8
20°	4971.8	4990.1	4941.8	4941.8	4947.6	4973.7	4894.5	4882.9	4846.2	4821.0	4799.8
22.5°	5627.8	5649.0	5539.9	5428.8	5319.6	5240.4	5161.1	5175.6	5150.5	5133.1	5120.6
25°	6479.9	6496.3	6319.5	6132.1	5909.9	5620.0	5423.9	5415.2	5401.7	5391.1	5385.3
27.5°	7281.8	7288.6	7121.4	6847.0	6589.1	6172.7	5690.6	5679.9	5663.5	5643.2	5625.8
30°	7967.8	7965.8	7793.9	7532.0	7255.7	6794.9	6095.4	6062.5	6014.2	5959.2	5916.7
32.5°	8561.9	8559.1	8370.7	8099.2	7809.3	7411.3	6650.0	6582.3	6507.0	6399.7	6335.0
35°	9029.6	9027.6	8849.9	8566.8	8234.4	7991.9	7285.7	7202.6	7106.9	6963.0	6863.5
37.5°	9206.4	9206.4	9106.9	8913.6	8619.9	8453.7	7991.9	7891.4	7789.0	7625.8	7513.7
40°	9103.0	9104.9	9126.2	9090.4	8947.4	8819.9	8650.8	8590.9	8503.0	8356.2	8239.3
42.5°	8756.1	8766.8	8907.8	9080.8	9152.3	9132.0	9235.3	9208.3	9146.5	9033.4	8940.7
45°	8316.5	8349.4	8504.0	8830.5	9209.3	9401.5	9725.2	9728.1	9716.5	9655.6	9584.1
47.5°	7712.7	7759.1	7962.9	8404.5	9075.9	9663.4	10222.7	10248.8	10273.0	10233.4	10200.5
50°	6910.8	6965.9	7271.2	7856.7	8804.5	9934.8	11162.8	11280.7	11390.8	11377.3	11399.5
52.5°	6051.9	6116.6	6490.5	7142.7	8337.8	9997.6	11763.7	11956.0	12148.3	12305.7	12472.9
55°	5277.1	5242.3	5616.2	6303.1	7570.7	9714.6	12303.8	12535.7	12750.2	12943.4	13142.4
57.5°	4226.9	4283.9	4658.7	5337.9	6555.3	8915.6	12675.8	13014.9	13323.1	13642.9	13925.0
60°	3089.7	3146.7	3553.5	4243.3	5452.9	7704.0	12391.7	12905.7	13399.4	13889.3	14271.8
62.5°	1865.6	1908.1	2266.6	2923.5	4204.6	6267.4	11126.1	11800.5	12527.0	13112.5	13698.9
65°	1161.3	1185.5	1317.8	1679.2	2700.4	4679.0	9090.4	9825.7	10608.2	11351.2	11960.8
67.5°	950.7	959.4	983.5	1060.8	1483.0	3051.1	6765.9	7417.1	8123.3	8842.1	9520.4
70°	855.0	849.2	849.2	854.1	950.7	1640.5	4429.8	4853.9	5442.3	6067.4	6687.6
72.5°	771.9	766.2	755.5	741.0	775.8	1000.9	2289.8	2609.5	3033.7	3589.2	4183.4
75°	693.7	686.0	673.4	655.0	679.2	755.5	1099.5	1233.8	1440.5	1736.2	2067.5
77.5°	612.5	602.9	591.3	577.8	608.7	587.4	644.4	692.7	771.9	866.6	991.3
80°	520.8	512.1	508.2	501.4	538.1	447.3	455.1	485.0	531.4	582.6	640.6
82.5°	407.7	407.7	423.2	426.1	466.6	321.7	340.1	366.2	390.3	417.4	444.4
85°	268.6	270.5	322.7	343.0	368.1	216.4	255.1	263.8	283.1	298.5	310.1
87.5°	84.1	90.8	197.1	218.3	211.6	122.7	156.5	160.4	173.9	184.5	194.2
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: P193952
 CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-8030

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1840.5	1828.9	1818.3	1817.3	1809.6	1799.0	1802.8	1786.4	1787.4	1778.7	1769.0
5°	2164.2	2156.4	2117.8	2107.2	2078.2	2059.8	2056.9	2018.3	2013.4	1991.2	1967.1
7.5°	2629.8	2604.7	2550.6	2524.5	2475.3	2438.5	2421.2	2369.9	2344.8	2286.9	2260.8
10°	3117.7	3085.9	3019.2	2982.5	2935.1	2876.2	2844.3	2769.9	2740.9	2687.8	2624.0
12.5°	3569.9	3538.0	3469.4	3441.4	3378.6	3315.8	3281.0	3197.0	3159.3	3074.3	3024.0
15°	3988.2	3956.4	3896.4	3867.5	3804.7	3753.5	3707.1	3624.0	3579.6	3500.3	3434.6
17.5°	4394.0	4360.2	4308.0	4281.9	4221.1	4168.9	4118.7	4040.4	3995.0	3915.8	3856.8
20°	4770.8	4745.7	4708.0	4673.2	4612.4	4565.0	4505.1	4437.5	4371.8	4313.8	4257.8
22.5°	5099.3	5089.6	5049.1	5033.6	4981.4	4940.8	4888.7	4822.0	4774.7	4701.2	4649.1
25°	5382.4	5379.5	5360.2	5355.3	5318.6	5280.0	5268.4	5213.3	5169.8	5105.1	5051.0
27.5°	5625.8	5628.7	5623.9	5637.4	5627.8	5610.4	5611.4	5593.0	5567.9	5513.8	5466.4
30°	5896.4	5880.9	5889.6	5908.9	5914.7	5916.7	5948.5	5959.2	5957.2	5921.5	5898.3
32.5°	6279.0	6242.2	6208.4	6205.5	6224.9	6232.6	6286.7	6314.7	6338.9	6347.6	6351.4
35°	6766.9	6693.4	6622.9	6585.2	6552.4	6561.1	6599.7	6645.1	6698.3	6735.0	6778.5
37.5°	7381.3	7291.5	7166.8	7078.0	7055.7	7007.4	7032.5	7068.3	7120.5	7177.5	7252.8
40°	8126.2	7990.0	7849.9	7732.0	7668.3	7579.4	7578.4	7571.7	7603.5	7656.7	7762.9
42.5°	8843.1	8722.3	8573.5	8449.9	8366.8	8248.0	8223.8	8161.0	8175.5	8221.9	8325.2
45°	9514.6	9415.1	9324.2	9181.2	9110.7	8982.2	8941.6	8867.2	8825.7	8847.0	8950.3
47.5°	10164.8	10101.0	10006.3	9913.6	9859.5	9744.5	9692.3	9639.2	9586.1	9584.1	9692.3
50°	11432.4	11398.5	11286.5	11189.9	11215.9	11074.9	11083.6	10940.6	11005.3	11013.1	11240.1
52.5°	12623.6	12741.5	12824.6	12926.0	12991.7	13004.3	13047.7	13112.5	13190.7	13345.3	13555.9
55°	13305.7	13453.5	13539.5	13616.8	13744.3	13771.4	13843.8	13929.8	13998.4	14172.3	14351.1
57.5°	14116.3	14390.7	14524.0	14646.7	14818.7	14884.4	15005.1	15098.9	15187.7	15393.5	15610.0
60°	14615.8	14950.1	15221.6	15415.8	15631.2	15785.8	15968.4	16115.2	16323.9	16570.3	16893.0
62.5°	14218.7	14709.5	15069.9	15403.2	15695.9	15991.6	16253.4	16527.8	16844.7	17217.6	17718.1
65°	12637.1	13136.6	13754.0	14099.9	14487.3	14943.3	15341.4	15785.8	16217.7	16760.6	17500.7
67.5°	10173.5	10754.1	11447.8	11796.6	12242.0	12751.1	13197.5	13740.5	14244.8	14902.7	15817.7
70°	7333.0	8083.7	8667.3	9031.5	9551.3	10075.9	10506.8	11138.6	11556.0	12230.4	13176.2
72.5°	4643.3	5235.5	5950.5	6409.4	6871.2	7402.6	7843.1	8388.0	8777.4	9391.9	10248.8
75°	2496.5	2933.2	3561.2	3996.9	4491.6	4945.7	5461.6	5826.8	6114.7	6600.7	7296.3
77.5°	1170.0	1435.7	1753.5	2088.8	2424.0	2773.8	3113.9	3409.5	3533.2	3811.4	4222.0
80°	710.1	796.1	888.9	992.2	1132.3	1245.4	1395.1	1503.3	1511.0	1599.0	1724.6
82.5°	474.4	506.3	534.3	560.4	596.1	624.1	656.0	693.7	709.1	729.4	770.0
85°	323.7	339.1	344.9	361.3	357.5	367.1	379.7	392.3	399.0	398.1	416.4
87.5°	199.0	206.8	210.6	214.5	211.6	207.7	213.5	220.3	222.2	216.4	218.3
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: P193952

CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-8030

CANDELA DISTRIBUTION (continued):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1770.9	1762.2	1753.5	1747.8	1745.8	1694.6	1672.4	1657.9	1627.0	1601.9	1581.6
5°	1953.5	1935.2	1920.7	1903.3	1893.6	1764.2	1716.8	1684.0	1629.9	1598.0	1569.0
7.5°	2247.2	2196.0	2166.1	2132.3	2103.3	1869.5	1791.2	1740.0	1664.7	1622.2	1589.3
10°	2580.6	2527.4	2480.1	2427.9	2382.5	2009.6	1895.6	1816.3	1716.8	1661.8	1618.3
12.5°	2952.5	2900.4	2840.5	2773.8	2715.8	2187.3	2028.9	1915.9	1779.6	1706.2	1645.3
15°	3392.1	3300.3	3227.9	3150.6	3083.0	2399.9	2184.4	2027.9	1846.3	1746.8	1665.6
17.5°	3800.8	3704.2	3605.6	3538.0	3459.8	2638.5	2341.0	2141.9	1901.4	1772.9	1669.5
20°	4199.8	4094.5	4009.5	3918.7	3836.5	2885.9	2508.1	2242.4	1937.1	1773.8	1645.3
22.5°	4551.5	4485.8	4391.1	4292.6	4209.5	3133.2	2664.6	2327.4	1950.6	1751.6	1602.8
25°	4951.5	4881.9	4766.0	4682.9	4590.1	3385.4	2818.2	2393.1	1942.9	1710.1	1537.1
27.5°	5378.5	5301.2	5182.4	5095.4	4983.4	3647.2	2959.3	2440.5	1913.9	1642.4	1449.2
30°	5823.9	5753.4	5636.5	5548.6	5435.5	3924.5	3116.8	2472.4	1856.0	1548.7	1346.8
32.5°	6302.1	6243.2	6127.3	6035.5	5914.7	4224.9	3263.6	2482.0	1768.0	1437.6	1238.6
35°	6756.2	6715.7	6618.1	6532.1	6406.5	4509.0	3419.2	2477.2	1663.7	1315.9	1140.0
37.5°	7267.3	7243.2	7194.9	7085.7	6932.1	4894.5	3605.6	2456.9	1536.2	1195.1	1064.7
40°	7812.2	7814.2	7762.0	7687.6	7544.6	5362.1	3827.9	2417.3	1397.0	1088.8	996.1
42.5°	8389.0	8419.0	8393.8	8340.7	8203.5	5833.6	4093.5	2369.0	1261.8	985.5	928.5
45°	9049.9	9086.6	9125.2	9047.0	8913.6	6455.8	4443.3	2306.2	1115.9	899.5	882.1
47.5°	9812.1	9870.1	9904.9	9905.9	9772.5	7226.7	5011.4	2268.5	986.4	841.5	859.9
50°	11420.8	11439.1	11521.2	11664.2	11561.8	9011.2	6003.6	2245.3	898.5	805.8	843.4
52.5°	13738.5	13940.5	14082.5	14072.8	13933.7	10144.5	6550.4	2125.5	846.3	792.2	835.7
55°	14682.5	14934.6	15197.4	15267.0	15158.8	11111.6	7067.3	2005.7	821.2	801.9	838.6
57.5°	15940.4	16365.5	16725.8	16877.5	16721.0	12349.2	7747.5	1942.9	813.5	828.0	857.0
60°	17409.9	17935.5	18408.9	18681.3	18681.3	13771.4	8452.8	1916.8	802.9	866.6	887.9
62.5°	18353.8	19125.7	19840.7	20239.7	20228.1	14761.7	8765.8	1827.9	778.7	893.7	930.4
65°	18357.7	19275.5	20186.6	20634.9	20658.0	14639.9	8248.9	1614.4	734.3	897.5	972.9
67.5°	16827.3	17806.0	18867.8	19369.2	19485.1	13476.7	7140.8	1327.5	661.8	858.9	988.4
70°	14211.9	15167.5	16251.5	16744.2	16950.0	11488.4	5751.4	1023.1	569.1	773.9	956.5
72.5°	11196.6	12133.8	12888.3	13248.7	13409.1	8781.3	4188.2	772.9	466.6	652.1	870.5
75°	7927.2	8630.5	9031.5	9111.7	9136.8	5293.5	2544.8	574.9	384.5	507.2	735.2
77.5°	4474.2	4775.6	4742.8	4778.5	4481.0	2043.4	1108.2	411.6	316.9	385.5	570.0
80°	1746.8	1800.9	1691.7	1657.9	1520.7	760.4	488.9	286.9	253.1	291.8	399.0
82.5°	770.0	795.1	771.9	777.7	743.9	392.3	292.7	207.7	193.2	213.5	264.7
85°	424.1	431.9	429.9	442.5	424.1	156.5	139.1	127.5	135.3	144.9	170.0
87.5°	206.8	208.7	201.9	212.6	205.8	79.2	68.6	72.5	79.2	81.2	81.2
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: P193952

CATALOG NUMBER: GLEON-AF-04-LED-E1-T2R-8030

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	1658.9	1658.9	1658.9	1658.9	1658.9	1658.9
2.5°	1567.1	1559.4	1560.3	1558.4	1554.5	1554.5
5°	1553.6	1545.8	1545.8	1543.9	1539.1	1540.0
7.5°	1567.1	1554.5	1549.7	1542.9	1536.2	1536.2
10°	1582.5	1560.3	1546.8	1535.2	1526.5	1526.5
12.5°	1594.1	1559.4	1537.1	1521.7	1513.0	1513.0
15°	1598.0	1552.6	1521.7	1503.3	1495.6	1494.6
17.5°	1585.4	1526.5	1488.8	1467.6	1457.9	1455.0
20°	1546.8	1479.2	1433.8	1409.6	1396.1	1391.2
22.5°	1488.8	1411.5	1358.4	1333.3	1315.9	1313.0
25°	1407.7	1324.6	1272.4	1248.3	1238.6	1235.7
27.5°	1313.0	1235.7	1191.3	1175.8	1167.1	1166.1
30°	1223.1	1157.4	1124.6	1113.0	1102.4	1100.4
32.5°	1139.1	1097.5	1085.0	1068.6	1043.4	1040.5
35°	1079.2	1075.3	1066.6	1029.9	999.0	990.3
37.5°	1042.5	1078.2	1033.8	961.3	939.1	937.2
40°	1021.2	1048.3	971.9	946.8	948.8	946.8
42.5°	972.9	1000.9	973.9	962.3	970.0	971.9
45°	924.6	955.5	988.4	980.6	999.0	999.0
47.5°	897.5	943.9	987.4	987.4	1014.4	1024.1
50°	866.6	934.3	971.9	985.5	1006.7	999.0
52.5°	864.7	917.8	949.7	973.9	983.5	974.8
55°	867.6	904.3	927.5	954.5	966.1	967.1
57.5°	871.5	896.6	912.0	924.6	959.4	959.4
60°	881.1	889.8	898.5	905.3	950.7	951.6
62.5°	896.6	883.1	881.1	887.9	945.9	942.0
65°	920.7	873.4	858.9	865.7	941.0	929.4
67.5°	953.6	858.9	830.9	835.7	937.2	912.0
70°	983.5	835.7	796.1	791.3	900.4	856.0
72.5°	986.4	808.7	747.8	733.3	782.6	740.1
75°	938.1	790.3	694.7	652.1	646.3	640.6
77.5°	845.4	779.7	632.8	566.2	554.6	558.4
80°	707.2	740.1	558.4	479.2	542.0	535.2
82.5°	528.5	653.1	474.4	424.1	423.2	373.9
85°	293.7	509.2	386.5	317.9	221.2	214.5
87.5°	82.1	283.1	270.5	179.7	122.7	127.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)