

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: P324314

Luminaire Tested: **GLEON-SA0A-830-U-SLL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324314
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA0A-830-U-SLL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27174 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

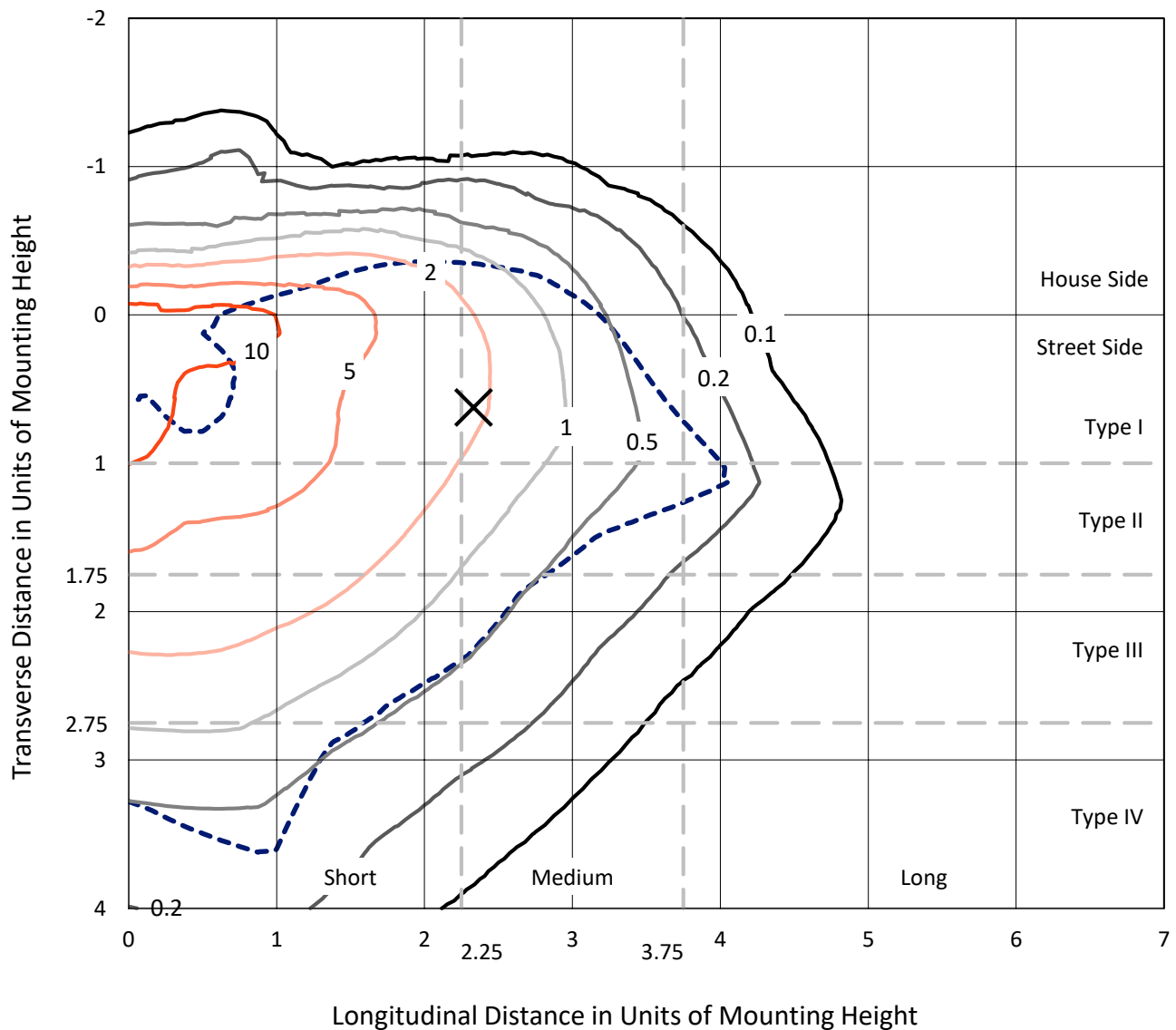
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

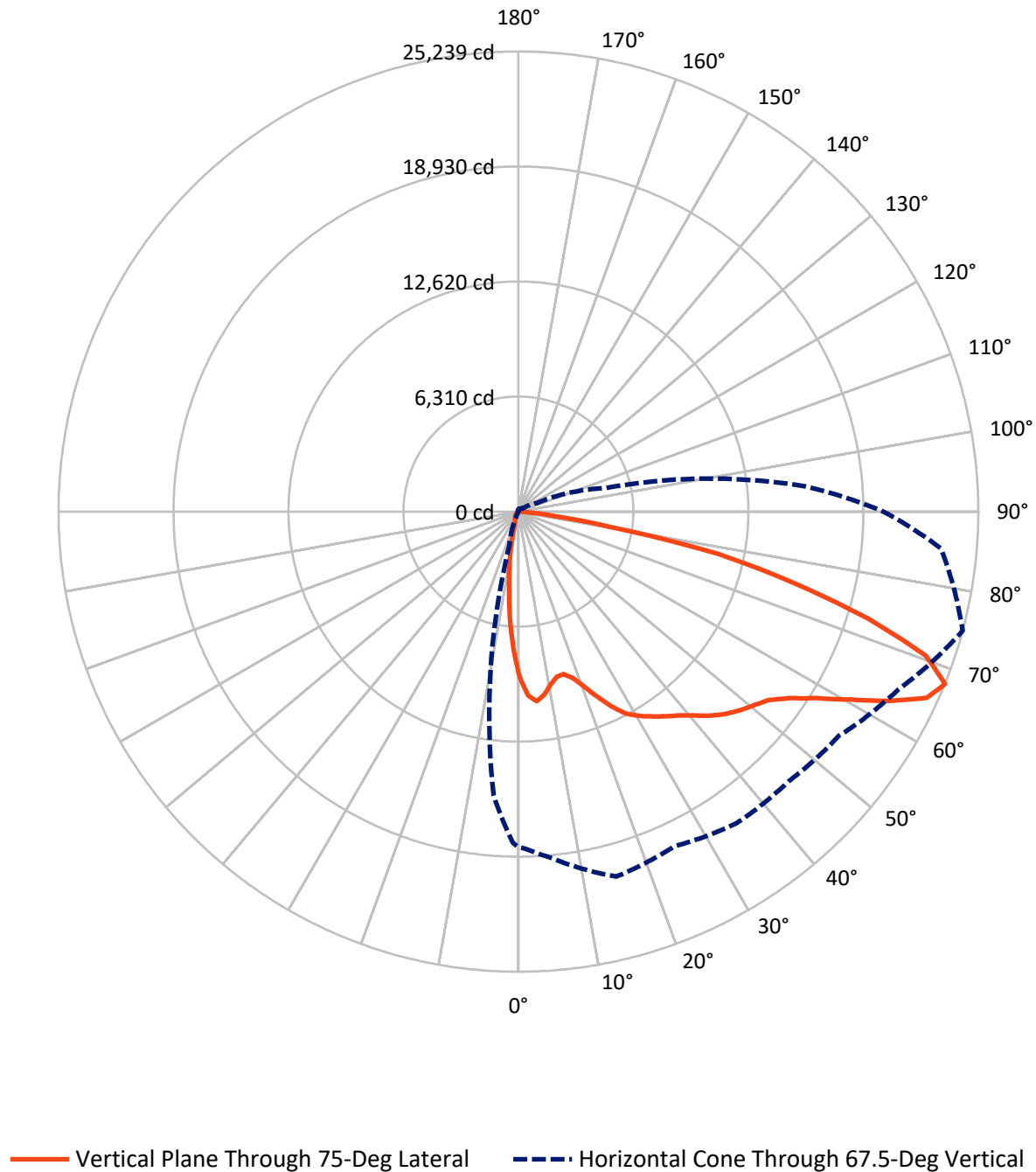
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 18.9 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4077.7	0.0	4077.7
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	23096.3	0.0	23096.3
	% Fixture	85.0	0.0	85.0
Total	Lumens	27174.0	0.0	27174.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	691.5	2.5
10°-20°	1361.6	5.0
20°-30°	1926.3	7.1
30°-40°	2832.2	10.4
40°-50°	4070.8	15.0
50°-60°	5730.6	21.1
60°-70°	6692.9	24.6
70°-80°	3414.5	12.6
80°-90°	453.6	1.7
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°	27174.0	100.0
0°-180°	27174.0	100.0

Coefficient of Utilization



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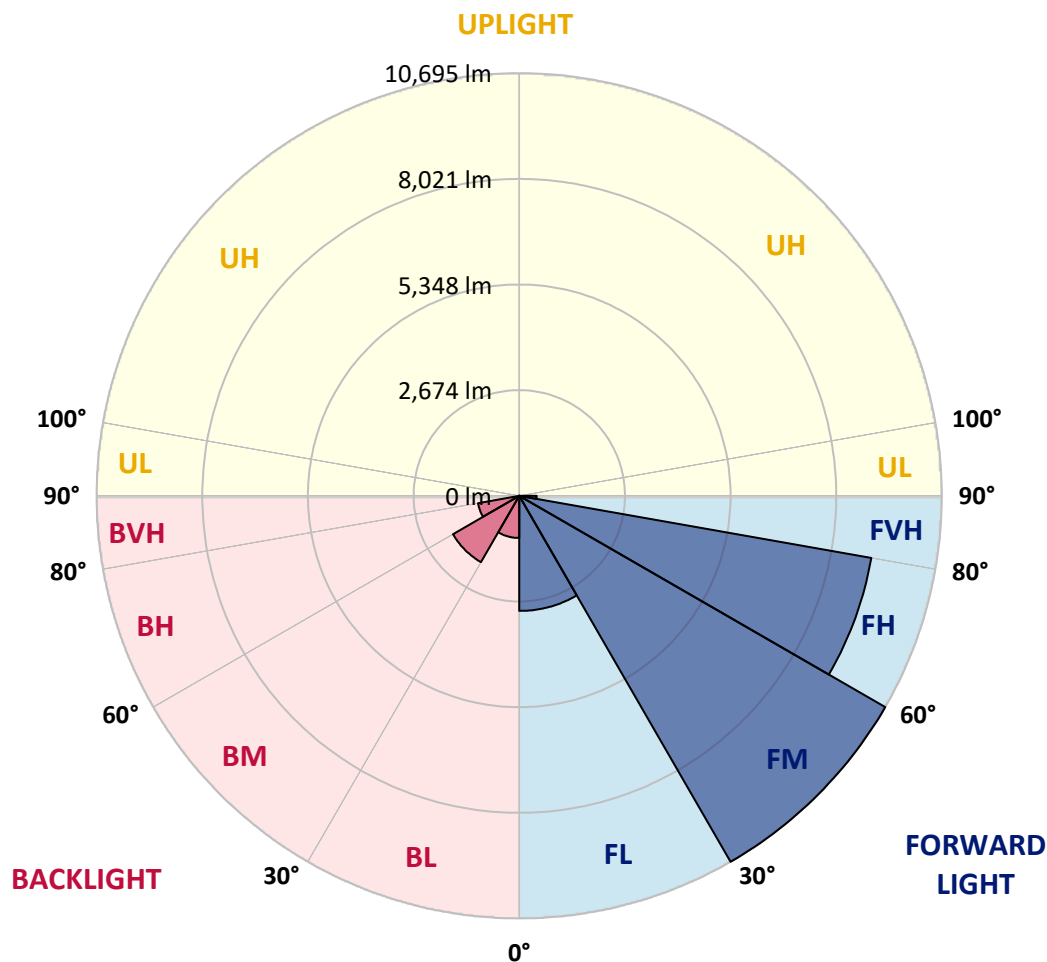
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2913.1	10.7			
FM	(30°-60°)	10695.2	39.4			
FH	(60°-80°)	9048.2	33.3			G4/12000
FVH	(80°-90°)	439.8	1.6			G3/500
BL	(0°-30°)	1066.4	3.9	B3/2500		
BM	(30°-60°)	1938.4	7.1	B2/2500		
BH	(60°-80°)	1059.2	3.9	B3/2500		G3/2500
BVH	(80°-90°)	13.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4
2.5°	9882.3	9897.8	9977.6	10163.0	10365.1	10380.5	10517.0	10376.6	10329.0	10102.5	9868.2
5°	9957.0	10016.2	10290.4	10834.9	11307.3	11459.2	11567.4	11291.9	11002.3	10448.7	9857.9
7.5°	9355.8	9455.0	9886.2	10908.3	11752.7	12126.0	12196.8	11765.6	11056.3	10144.9	9256.7
10°	8586.1	8699.3	9219.4	10475.8	11635.6	12275.4	12373.2	11808.1	10788.6	9653.2	8606.7
12.5°	7963.0	8095.6	8627.3	9989.2	11232.7	11940.7	12133.8	11665.2	10556.9	9304.4	8162.5
15°	7676.0	7827.9	8386.5	9675.1	10786.0	11343.4	11503.0	11300.9	10428.1	9249.0	8059.6
17.5°	7840.7	8005.5	8582.2	9702.1	10366.3	10604.5	10733.2	10815.6	10428.1	9582.4	8360.8
20°	8516.5	8694.2	9304.4	9976.3	10018.8	9930.0	10067.7	10357.3	10549.1	10215.7	9084.2
22.5°	9451.1	9659.6	10348.3	10446.2	9848.9	9512.9	9530.9	9985.3	10769.3	11019.0	10088.3
25°	10590.3	10845.2	11545.5	11146.4	9919.7	9264.4	9258.0	9678.9	10984.2	11823.5	11206.9
27.5°	11721.8	12002.5	12617.8	12001.2	10211.9	9219.4	9206.5	9586.3	11194.1	12539.3	12428.5
30°	12670.6	12943.5	13473.8	12620.3	10527.3	9324.9	9263.2	9685.4	11318.9	13004.0	13319.3
32.5°	13442.9	13661.7	14090.4	13046.4	10864.5	9529.6	9395.7	9950.6	11531.3	13396.6	14138.0
35°	14292.5	14522.9	14694.1	13451.9	11243.0	9824.4	9632.6	10371.5	11858.3	13795.6	15035.3
37.5°	15261.8	15490.9	15470.4	13822.7	11723.1	10312.3	10190.0	11038.3	12366.8	14190.8	16036.8
40°	16210.5	16444.8	16277.5	14228.1	12286.9	11116.8	11026.7	12039.8	13047.7	14696.7	17210.7
42.5°	17098.7	17352.3	16994.5	14611.7	12958.9	12131.2	12285.7	13329.6	13899.9	15319.7	18222.5
45°	17814.5	18073.2	17595.6	14985.1	13666.9	13361.8	13826.5	14758.5	14924.6	15846.2	18906.1
47.5°	18334.5	18579.1	18012.7	15358.4	14573.1	14866.6	15676.3	16256.9	15850.1	16303.2	19391.4
50°	18666.6	18857.1	18135.0	15825.6	15762.6	16622.5	17603.4	17886.6	16721.6	16715.1	19980.9
52.5°	18877.7	18964.0	18225.1	16313.5	17003.5	18534.0	19490.5	19579.3	17618.8	17168.3	20775.2
55°	19605.0	19674.6	18863.6	16904.4	18029.4	20208.8	21197.4	21115.0	18634.5	18055.2	21712.3
57.5°	20846.0	20919.3	20183.0	17754.0	18859.7	21243.7	22434.5	22582.5	19825.2	19301.3	22716.4
60°	21469.0	21605.5	21342.9	18830.1	19664.3	21905.4	23277.6	23750.0	21313.3	20943.8	23689.5
62.5°	20903.9	21102.1	21483.2	20023.4	20463.7	22269.7	23540.2	24168.4	22837.4	22858.0	24289.4
65°	19776.3	19934.6	20580.8	20677.3	20927.1	22224.6	22891.4	23584.0	23770.6	24616.4	24257.2
67.5°	18414.3	18473.5	19021.9	20728.8	20255.1	20870.4	20942.5	21454.8	23033.0	25239.4	23282.8
70°	16453.8	16486.0	16964.9	19005.2	17406.4	17541.6	17434.7	17539.0	19802.0	23721.7	20822.8
72.5°	13242.1	13323.2	14004.2	15783.2	12680.8	12290.8	13130.1	13083.8	15250.2	20041.4	15465.2
75°	9749.7	9890.1	10918.6	12713.0	8900.2	8050.6	8663.3	8826.8	10841.3	15502.5	9671.2
77.5°	6826.4	6930.6	7927.0	9345.5	6441.5	5756.7	5535.2	5729.6	7155.9	11214.7	4872.3
80°	3932.6	3971.2	4607.1	5396.2	4340.7	4966.3	4499.0	4632.9	4287.9	4989.4	2095.7
82.5°	2573.2	2579.7	2828.1	3211.7	2703.3	3140.9	2324.8	2972.3	2637.6	2004.3	682.3
85°	1390.2	1398.0	1640.0	2279.7	1530.6	865.0	508.5	1044.0	1631.0	459.6	186.7
87.5°	153.2	140.3	494.3	829.0	424.8	78.5	27.0	117.1	261.3	29.6	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4
2.5°	9748.5	9641.6	9375.2	9093.2	8866.7	8654.3	8440.6	8179.3	7977.2	7936.0	7869.1
5°	9539.9	9201.4	8642.7	8081.5	7629.6	7059.4	6697.6	6415.7	6140.3	6123.5	6068.2
7.5°	8811.3	8365.9	7579.4	6803.2	6167.3	5624.1	5075.7	4708.8	4420.5	4318.8	4258.3
10°	8111.1	7610.3	6628.1	5742.5	5174.8	4694.7	4308.5	3924.9	3577.3	3337.9	3229.7
12.5°	7621.9	7068.4	5985.8	5222.4	4815.7	4360.0	3888.8	3410.0	3009.6	2721.3	2544.9
15°	7432.7	6841.8	5770.8	5016.5	4514.4	3937.7	3335.3	2788.2	2344.1	2082.8	1924.5
17.5°	7657.9	6970.5	5754.1	4765.5	4063.9	3346.9	2681.4	2035.2	1616.8	1418.6	1316.9
20°	8229.5	7379.9	5747.6	4457.8	3528.4	2646.6	1816.3	1338.8	1085.2	974.5	926.8
22.5°	9037.9	7902.5	5799.1	4154.0	2971.0	1891.0	1253.8	983.5	853.5	794.2	767.2
25°	10078.0	8636.3	5944.6	3878.5	2447.1	1410.8	977.0	823.8	732.5	686.1	666.8
27.5°	11186.3	9480.7	6171.1	3639.1	2021.0	1125.1	836.7	705.4	639.8	607.6	589.6
30°	12100.3	10459.0	6400.3	3372.6	1712.1	980.9	765.9	643.6	567.7	547.1	530.4
32.5°	12899.7	11199.2	6562.5	3131.9	1510.0	871.5	692.5	575.4	523.9	484.0	466.0
35°	13727.4	11815.8	6557.3	2963.3	1370.9	789.1	630.8	514.9	453.1	406.8	392.6
37.5°	14623.3	12512.2	6445.3	2819.1	1310.4	723.4	596.0	482.7	420.9	374.6	356.6
40°	15672.5	13243.4	6330.8	2683.9	1293.7	670.7	571.5	457.0	391.3	346.3	328.3
42.5°	16694.5	13902.5	6230.4	2583.5	1221.6	669.4	549.7	437.7	368.2	324.4	303.8
45°	17512.0	14516.5	6211.1	2523.0	1145.7	692.5	538.1	424.8	350.1	306.4	287.1
47.5°	18191.6	15183.3	6334.6	2480.6	1073.6	632.0	566.4	415.8	333.4	290.9	269.0
50°	19000.0	16002.0	6625.6	2411.0	997.6	569.0	648.8	418.4	319.2	275.5	252.3
52.5°	20127.7	17134.8	7052.9	2293.9	893.4	511.0	638.5	420.9	303.8	258.7	235.6
55°	21391.8	18549.5	7512.5	2099.5	747.9	435.1	547.1	402.9	274.2	240.7	218.8
57.5°	22720.2	19832.9	7785.4	1867.8	594.7	375.9	437.7	366.9	242.0	216.3	202.1
60°	22928.8	20320.8	7660.5	1583.3	472.4	327.0	324.4	373.3	216.3	190.5	180.2
62.5°	22410.0	19708.0	7056.8	1329.7	395.2	287.1	266.5	325.7	195.7	169.9	159.6
65°	21412.4	18051.3	6078.5	1198.4	366.9	245.9	221.4	229.1	171.2	148.0	139.0
67.5°	20024.7	15839.8	4990.7	1123.8	363.0	211.1	189.2	173.8	148.0	128.7	121.0
70°	17187.6	13195.8	3981.5	1082.6	352.7	177.6	159.6	141.6	123.6	109.4	103.0
72.5°	12650.0	9350.7	3097.2	1037.5	355.3	141.6	139.0	117.1	99.1	85.0	82.4
75°	7309.1	5342.2	2031.3	840.6	338.6	109.4	115.9	82.4	69.5	59.2	59.2
77.5°	3895.3	3258.1	773.6	350.1	123.6	69.5	65.7	48.9	43.8	36.0	34.8
80°	1697.9	1434.0	233.0	97.8	68.2	37.3	24.5	21.9	19.3	15.4	14.2
82.5°	601.2	518.8	75.9	47.6	29.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	136.5	97.8	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4
2.5°	7732.6	7704.3	7536.9	7543.4	7573.0	7615.5	7515.1	7561.4	7686.3	7806.0	7851.0
5°	5979.3	5985.8	5884.1	5947.2	6003.8	6042.4	5880.2	5882.8	5981.9	6117.1	6187.9
7.5°	4213.2	4202.9	4208.1	4358.7	4465.5	4388.3	4448.8	4239.0	4251.8	4348.4	4276.3
10°	3131.9	2990.3	2910.5	3023.8	3140.9	3098.4	2994.2	2926.0	2973.6	3080.4	3072.7
12.5°	2461.3	2257.9	2138.1	2057.0	2153.6	2073.8	2071.2	2012.0	1947.6	1959.2	2130.4
15°	1851.1	1703.1	1561.5	1431.4	1428.9	1401.8	1264.1	1109.6	1096.7	1104.5	1193.3
17.5°	1273.1	1222.9	1165.0	1053.0	1023.4	910.1	776.2	714.4	683.5	697.7	727.3
20°	894.6	875.3	881.8	821.3	778.8	670.7	592.1	567.7	562.5	576.7	590.9
22.5°	741.5	706.7	702.8	675.8	633.3	554.8	512.3	498.2	491.7	504.6	514.9
25°	648.8	614.0	599.9	583.1	538.1	484.0	458.3	445.4	439.0	446.7	453.1
27.5°	571.5	539.4	526.5	514.9	471.1	432.5	411.9	400.3	395.2	397.8	404.2
30°	513.6	485.3	468.6	454.4	417.1	390.0	372.0	360.4	355.3	355.3	361.7
32.5°	453.1	437.7	422.2	404.2	369.4	351.4	333.4	320.5	315.4	316.7	321.8
35°	377.2	372.0	375.9	359.1	329.5	314.1	296.1	281.9	278.0	279.3	284.5
37.5°	334.7	311.5	325.7	316.7	299.9	279.3	256.2	243.3	236.9	240.7	243.3
40°	307.7	279.3	269.0	278.0	275.5	242.0	221.4	208.5	203.4	204.7	207.2
42.5°	284.5	251.0	227.8	226.6	242.0	211.1	189.2	177.6	171.2	171.2	173.8
45°	262.6	226.6	198.2	176.4	203.4	178.9	158.3	148.0	140.3	140.3	141.6
47.5°	245.9	206.0	172.5	144.2	153.2	146.7	130.0	119.7	112.0	112.0	113.3
50°	230.4	185.4	149.3	121.0	114.6	121.0	105.6	94.0	88.8	87.5	90.1
52.5°	213.7	164.8	127.4	103.0	90.1	91.4	82.4	74.7	68.2	68.2	70.8
55°	197.0	148.0	110.7	87.5	74.7	68.2	65.7	60.5	55.4	55.4	57.9
57.5°	180.2	130.0	94.0	72.1	59.2	54.1	54.1	50.2	46.3	46.3	48.9
60°	164.8	112.0	77.2	59.2	46.3	45.1	46.3	42.5	39.9	39.9	42.5
62.5°	146.7	95.3	63.1	48.9	37.3	36.0	39.9	37.3	34.8	34.8	37.3
65°	124.9	81.1	50.2	37.3	28.3	28.3	33.5	30.9	28.3	28.3	30.9
67.5°	105.6	68.2	38.6	27.0	20.6	21.9	28.3	25.7	24.5	24.5	27.0
70°	87.5	52.8	27.0	16.7	11.6	16.7	21.9	21.9	21.9	21.9	24.5
72.5°	65.7	36.0	15.4	6.4	5.1	11.6	18.0	20.6	19.3	19.3	23.2
75°	42.5	20.6	5.1	0.0	0.0	6.4	14.2	16.7	16.7	15.4	19.3
77.5°	24.5	6.4	0.0	0.0	0.0	0.0	9.0	7.7	6.4	5.1	9.0
80°	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P324314

CATALOG NUMBER: GLEON-SA0A-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4	9116.4
2.5°	8032.5	8184.4	8398.1	8624.7	8973.5	9250.3	9521.9	9754.9	9845.0	9882.3
5°	6357.8	6580.5	6893.3	7294.9	7924.4	8490.8	9064.9	9642.9	9893.9	9957.0
7.5°	4562.1	4846.6	5244.3	5747.6	6485.2	7219.0	8020.9	8869.3	9258.0	9355.8
10°	3376.5	3724.1	4179.8	4710.1	5414.2	6168.6	7042.6	8011.9	8456.0	8586.1
12.5°	2395.6	2865.5	3475.6	4120.5	4730.7	5403.9	6288.3	7356.7	7822.7	7963.0
15°	1407.0	1861.4	2583.5	3447.3	4228.7	4910.9	5809.4	7020.7	7534.4	7676.0
17.5°	807.1	1033.7	1579.5	2542.3	3603.1	4547.9	5658.8	7104.4	7709.4	7840.7
20°	616.6	688.7	910.1	1637.4	2871.9	4191.3	5658.8	7578.1	8323.5	8516.5
22.5°	539.4	592.1	682.3	977.0	2113.7	3809.0	5724.5	8263.0	9237.4	9451.1
25°	478.9	526.5	603.7	735.0	1441.7	3354.6	5880.2	9103.5	10313.6	10590.3
27.5°	428.7	473.7	543.2	643.6	986.0	2806.2	6090.1	10089.6	11500.4	11721.8
30°	383.6	426.1	489.2	560.0	760.8	2184.5	6269.0	11019.0	12432.4	12670.6
32.5°	341.1	379.7	436.4	489.2	623.0	1615.5	6288.3	11755.3	13206.1	13442.9
35°	301.2	336.0	387.5	428.7	516.2	1275.7	5988.4	12393.8	13979.7	14292.5
37.5°	262.6	296.1	341.1	372.0	454.4	1040.1	5530.1	13105.6	14972.2	15261.8
40°	226.6	256.2	302.5	323.1	429.9	799.4	5031.9	13852.3	15945.4	16210.5
42.5°	193.1	221.4	266.5	306.4	377.2	597.3	4493.8	14552.5	16820.7	17098.7
45°	160.9	190.5	235.6	324.4	312.8	446.7	3918.4	15017.2	17512.0	17814.5
47.5°	130.0	163.5	225.3	308.9	249.7	328.3	3462.7	15457.5	18035.9	18334.5
50°	104.3	137.7	253.6	275.5	204.7	251.0	3272.2	15851.4	18379.6	18666.6
52.5°	85.0	115.9	239.4	211.1	171.2	207.2	3375.2	16489.9	18697.5	18877.7
55°	70.8	91.4	144.2	146.7	145.5	176.4	3502.6	17406.4	19520.1	19605.0
57.5°	61.8	73.4	100.4	113.3	122.3	157.0	3505.2	18722.0	20793.2	20846.0
60°	52.8	64.4	83.7	91.4	105.6	140.3	3377.8	19181.5	21293.9	21469.0
62.5°	46.3	56.6	69.5	75.9	88.8	126.2	3079.1	18516.0	20606.5	20903.9
65°	41.2	51.5	57.9	64.4	78.5	113.3	2587.4	17185.0	19466.0	19776.3
67.5°	36.0	45.1	51.5	57.9	70.8	100.4	1905.2	15639.0	18156.9	18414.3
70°	32.2	39.9	46.3	51.5	61.8	85.0	1156.0	13270.4	16347.0	16453.8
72.5°	30.9	36.0	42.5	46.3	54.1	74.7	585.7	9752.3	13068.3	13242.1
75°	27.0	32.2	38.6	41.2	47.6	64.4	238.1	6405.4	9470.4	9749.7
77.5°	21.9	29.6	34.8	37.3	41.2	52.8	121.0	4093.5	6646.2	6826.4
80°	7.7	21.9	29.6	30.9	34.8	38.6	79.8	2241.1	3855.4	3932.6
82.5°	0.0	14.2	23.2	21.9	24.5	29.6	51.5	1065.9	2544.9	2573.2
85°	0.0	6.4	18.0	14.2	10.3	20.6	18.0	233.0	1334.9	1390.2
87.5°	0.0	0.0	1.3	6.4	5.1	7.7	2.6	1.3	121.0	153.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Scotopic Flux vs. Wavelength


Scotopic Lumens: NR
S/P: 1.27

λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.32

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$



Color Vector Graphics



Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)