

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P639968

Luminaire Tested: GWS-SA5C-830-U-SLR-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P639968  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA5C-830-U-SLR-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (80) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

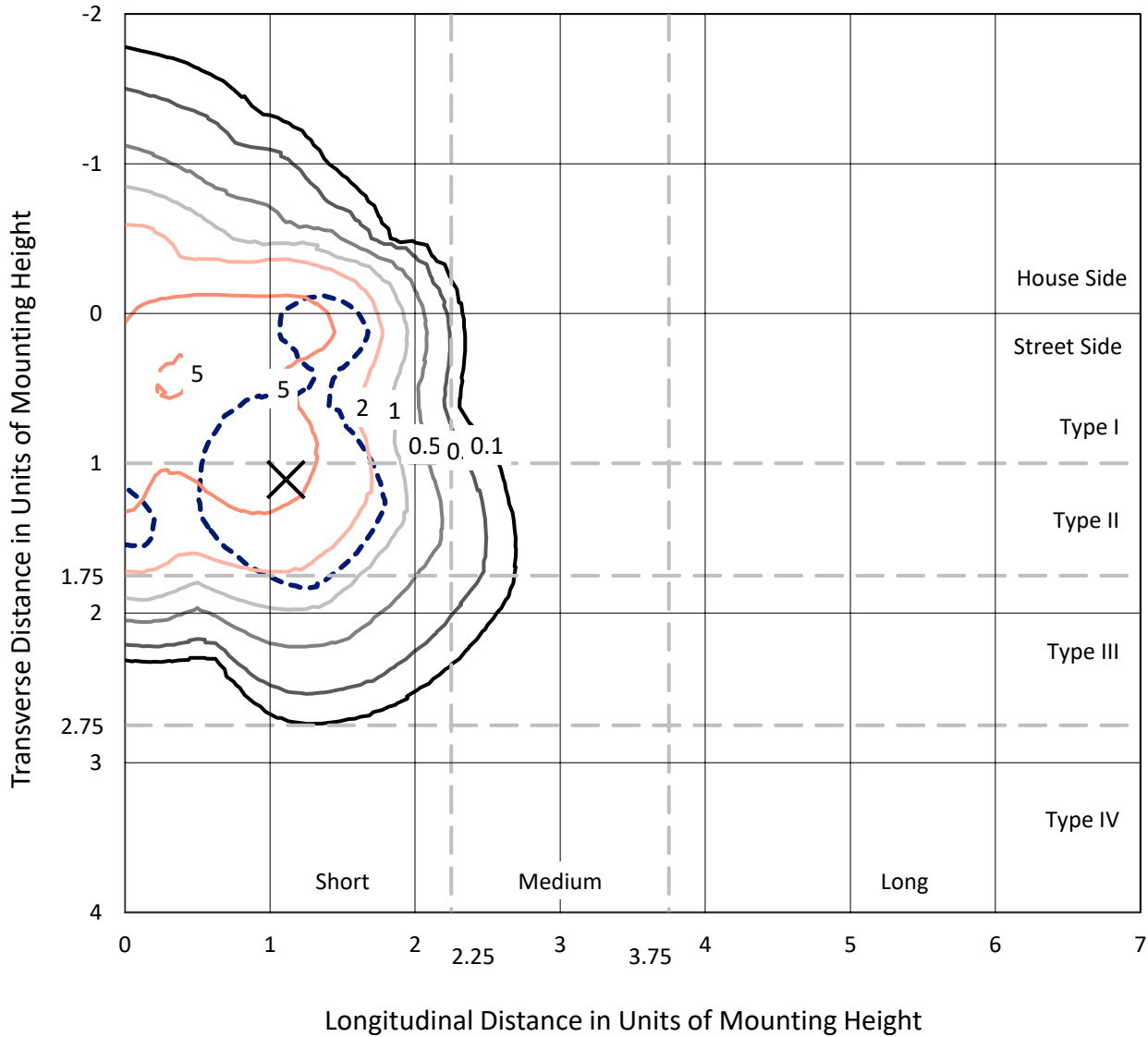
Lumens per Lamp: N/A  
Luminaire Lumens: 10091.8 lumens  
Efficiency: N/A  
Efficacy: 64.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 157.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P639968  
 CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

### Iso-Footcandle Lines of Horizontal Illumination

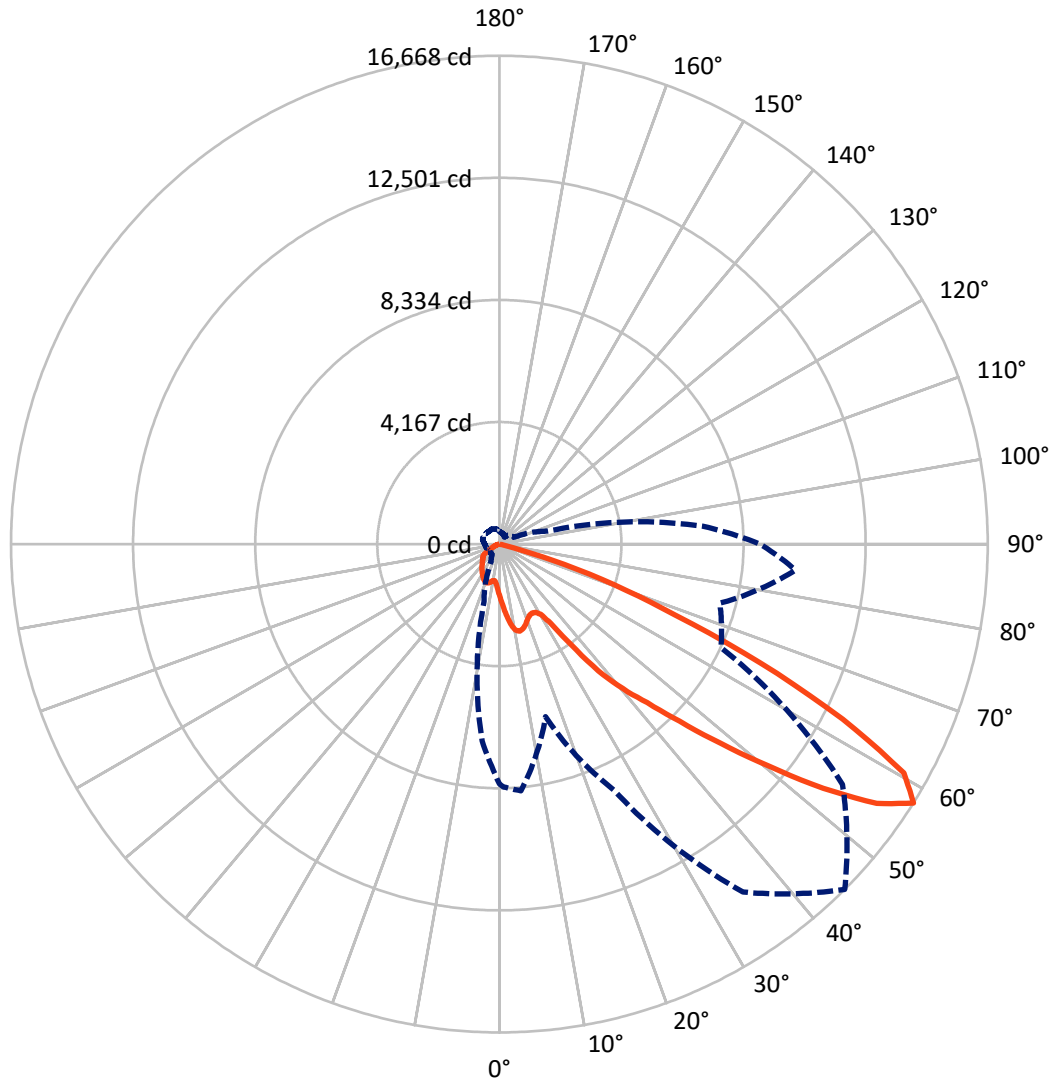
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.9 fc  
 Type III - Short - N/A

REPORT NUMBER: P639968  
CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P639968  
 CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2259.8	0.0	2259.8
	% Fixture	22.4	0.0	22.4
<b>Street Side</b>	Lumens	7832.0	0.0	7832.0
	% Fixture	77.6	0.0	77.6
<b>Total</b>	Lumens	10091.8	0.0	10091.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.5	1.7
10°-20°	564.5	5.6
20°-30°	917.0	9.1
30°-40°	1416.8	14.0
40°-50°	2271.9	22.5
50°-60°	3105.1	30.8
60°-70°	1503.9	14.9
70°-80°	137.7	1.4
80°-90°	0.4	0.0
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°	10091.8	100.0
0°-180°	10091.8	100.0

**Coefficient of Utilization**



REPORT NUMBER: P639968

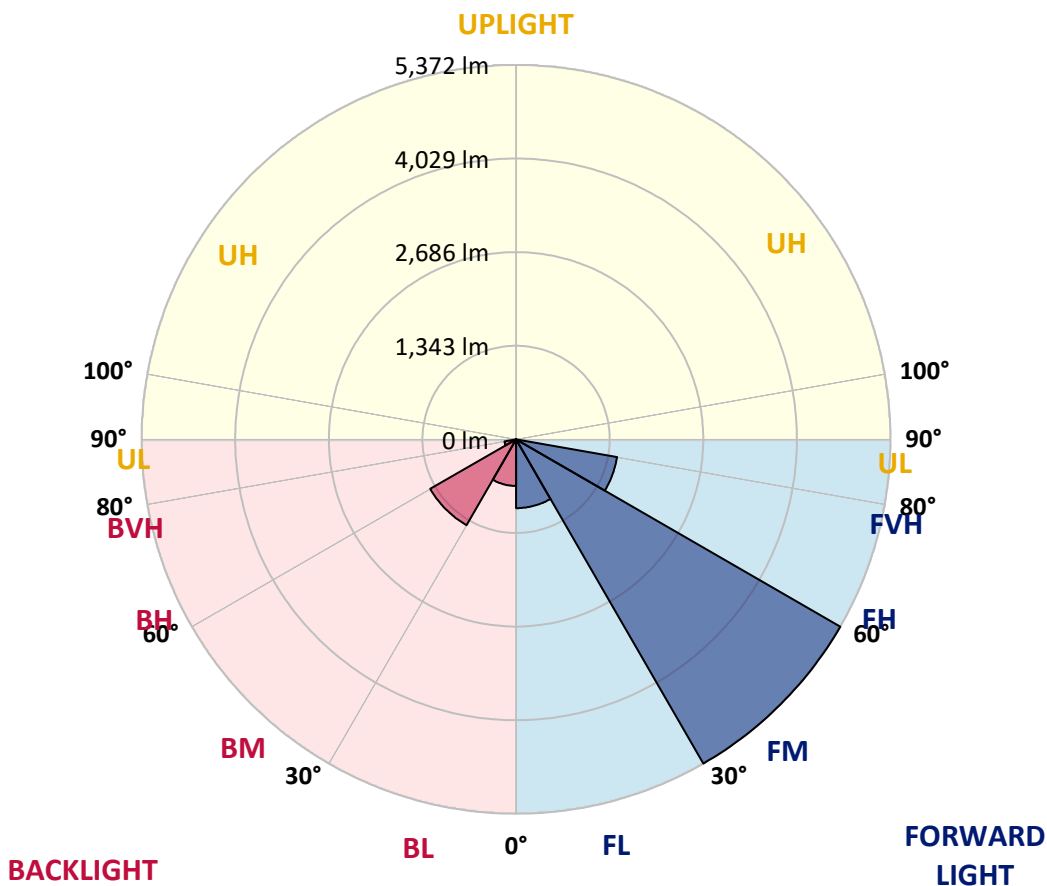
CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	987.3	9.8			
FM (30°-60°)	5372.1	53.2			
FH (60°-80°)	1472.2	14.6			G1/1800
FVH (80°-90°)	0.4	0.0			G0/10
BL (0°-30°)	668.7	6.6	B2/1000		
BM (30°-60°)	1421.8	14.1	B2/2500		
BH (60°-80°)	169.4	1.7	B1/500		G1/500
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0 <td></td> <td>U0/0</td> <td></td>		U0/0	

**BUG Rating: B2-U0-G1**

Type III Short





REPORT NUMBER: P639968

CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7
2.5°	1921.6	1933.8	1954.1	1997.5	2034.1	2058.5	2069.4	2066.7	2051.7	2040.9	2019.2
5°	2127.7	2127.7	2167.0	2266.0	2341.9	2389.4	2413.8	2398.9	2369.1	2321.6	2248.4
7.5°	2308.0	2314.8	2381.3	2522.3	2637.6	2705.4	2744.7	2736.6	2683.7	2592.8	2446.4
10°	2449.1	2457.2	2545.3	2717.6	2853.2	2922.3	2980.6	2986.1	2927.8	2807.1	2638.9
12.5°	2586.0	2594.2	2686.4	2851.8	2971.2	2999.6	3051.2	3071.5	3056.6	2971.2	2796.2
15°	2733.8	2752.8	2831.5	2954.9	3005.1	2971.2	3005.1	3041.7	3091.8	3083.7	2926.4
17.5°	2878.9	2892.5	2972.5	3015.9	2960.3	2872.2	2888.4	2931.8	3045.7	3156.9	3055.2
20°	3013.2	3032.2	3098.6	3041.7	2873.5	2736.6	2737.9	2794.9	2968.4	3201.7	3186.8
22.5°	3154.2	3182.7	3230.2	3070.1	2793.5	2629.4	2636.2	2687.7	2907.4	3243.7	3335.9
25°	3338.6	3365.8	3397.0	3140.7	2767.7	2576.5	2602.3	2649.8	2907.4	3315.6	3520.4
27.5°	3588.2	3607.2	3608.5	3272.2	2812.5	2584.7	2638.9	2693.2	2994.2	3459.3	3767.2
30°	3901.4	3931.3	3891.9	3477.0	2952.2	2693.2	2773.2	2841.0	3181.3	3702.1	4130.6
32.5°	4282.5	4324.5	4271.6	3780.7	3243.7	3067.4	3212.5	3251.9	3479.7	4053.3	4542.8
35°	4730.0	4765.2	4708.3	4201.1	3924.5	3957.0	4220.1	4169.9	4079.1	4485.9	5024.2
37.5°	5220.9	5253.4	5143.6	4838.5	4930.7	5071.7	5492.1	5319.9	5027.0	5043.2	5546.3
40°	5671.1	5706.4	5534.1	5531.4	5721.3	5978.9	6486.1	6248.8	5850.1	5772.8	6035.9
42.5°	6137.6	6162.0	6006.0	5900.3	6331.5	6861.7	7398.7	7078.7	6395.2	6311.2	6648.8
45°	6803.4	6854.9	6576.9	6082.0	6880.7	7877.4	8626.0	8000.8	6766.8	6699.0	7587.2
47.5°	7782.5	7820.5	7253.6	6195.9	7391.9	9142.6	10159.7	9196.9	7093.6	6939.0	8870.1
50°	8592.1	8617.8	7876.1	6320.7	7935.7	10506.8	11907.7	10615.3	7461.1	7336.3	10067.5
52.5°	9188.7	9286.4	8693.8	6576.9	8650.4	12111.1	13842.8	12295.5	8034.7	8103.9	11060.1
55°	9312.1	9445.0	9252.5	6734.3	9279.6	13745.1	15630.1	13799.4	8607.0	8685.6	11393.7
57.5°	8183.9	8289.7	8449.7	6099.6	9264.7	14493.7	16667.5	14298.4	8346.6	7789.3	10144.8
60°	6130.8	6204.0	6494.2	4662.2	8520.2	13831.9	15859.3	13449.5	7298.4	5943.7	7729.6
62.5°	3635.6	3668.2	4035.7	3020.0	7071.9	11911.7	13152.5	11605.3	5767.4	3997.7	4734.0
65°	1395.4	1381.8	1662.5	1490.3	5200.5	9488.4	9782.7	8847.0	3957.0	1832.1	1804.9
67.5°	215.6	206.1	278.0	440.7	3750.9	6575.6	6454.9	6376.3	2478.9	427.2	372.9
70°	48.8	48.8	59.7	130.2	2291.8	3863.4	4134.7	3942.1	1586.6	90.9	48.8
72.5°	23.1	23.1	28.5	55.6	829.9	1592.0	1855.1	1826.6	515.3	29.8	17.6
75°	8.1	9.5	9.5	12.2	50.2	82.7	189.9	135.6	32.5	0.0	0.0
77.5°	2.7	2.7	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.4	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: P639968

CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7
2.5°	1971.7	1962.2	1927.0	1879.5	1833.4	1792.7	1750.7	1700.5	1663.9	1621.9	1608.3
5°	2191.4	2131.7	2035.5	1935.1	1842.9	1764.2	1688.3	1606.9	1547.3	1487.6	1467.3
7.5°	2377.2	2289.0	2133.1	1982.6	1856.5	1745.3	1635.4	1524.2	1437.4	1366.9	1345.2
10°	2544.0	2442.3	2233.5	2047.7	1889.0	1760.2	1627.3	1487.6	1375.1	1291.0	1270.6
12.5°	2687.7	2569.8	2318.9	2096.5	1902.6	1754.8	1625.9	1514.7	1413.0	1316.7	1291.0
15°	2808.4	2678.2	2390.8	2129.0	1882.2	1687.0	1574.4	1556.8	1548.6	1442.9	1392.7
17.5°	2926.4	2779.9	2449.1	2143.9	1825.3	1567.6	1486.3	1566.3	1651.7	1582.5	1518.8
20°	3049.8	2883.0	2508.7	2146.7	1730.3	1433.4	1419.8	1545.9	1654.4	1632.7	1573.0
22.5°	3194.9	3011.8	2583.3	2145.3	1611.0	1319.5	1371.0	1506.6	1594.7	1593.4	1545.9
25°	3405.1	3174.6	2683.7	2153.4	1480.8	1231.3	1316.7	1440.1	1512.0	1509.3	1470.0
27.5°	3630.2	3368.5	2813.8	2173.8	1369.6	1179.8	1253.0	1349.3	1411.7	1409.0	1375.1
30°	3946.2	3592.2	2938.6	2175.1	1289.6	1152.7	1182.5	1248.9	1308.6	1301.8	1276.1
32.5°	4329.9	3844.5	3043.0	2097.8	1239.4	1126.9	1109.3	1143.2	1189.3	1179.8	1173.0
35°	4793.7	4144.2	3132.5	1928.3	1162.2	1075.4	1027.9	1034.7	1067.2	1072.7	1069.9
37.5°	5322.6	4500.8	3243.7	1704.6	1057.7	1000.8	937.0	931.6	950.6	968.2	981.8
40°	5844.7	4902.2	3394.2	1478.1	962.8	905.9	844.8	831.3	839.4	870.6	899.1
42.5°	6431.8	5367.3	3557.0	1284.2	897.7	801.4	743.1	717.4	740.4	790.6	824.5
45°	7278.0	6019.6	3715.6	1129.6	870.6	709.2	630.6	627.9	653.6	718.7	756.7
47.5°	8466.0	6863.1	3820.1	1008.9	869.2	637.4	543.8	560.1	589.9	653.6	697.0
50°	9624.0	7919.5	3704.8	916.7	840.8	589.9	478.7	511.2	541.1	596.7	641.4
52.5°	10322.4	8487.7	3255.9	829.9	752.6	568.2	415.0	471.9	477.3	527.5	575.0
55°	10249.2	8120.2	2493.8	695.7	622.4	537.0	348.5	425.8	428.5	466.5	507.2
57.5°	8895.8	6971.6	1712.7	564.1	467.8	443.4	287.5	359.4	385.1	408.2	438.0
60°	6629.8	5086.6	763.5	458.4	297.0	299.7	245.4	271.2	310.5	337.7	363.4
62.5°	3906.8	2926.4	310.5	275.3	164.1	188.5	198.0	198.0	222.4	242.7	259.0
65°	1476.8	1023.8	126.1	138.3	85.4	88.1	116.6	143.7	162.7	180.4	202.1
67.5°	259.0	179.0	65.1	51.5	50.2	44.8	59.7	93.6	104.4	118.0	127.5
70°	43.4	36.6	27.1	25.8	23.1	24.4	39.3	66.4	73.2	77.3	81.4
72.5°	12.2	10.8	8.1	6.8	5.4	6.8	24.4	51.5	54.2	57.0	61.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	9.5	36.6	39.3	40.7	44.8
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	10.8	13.6	10.8
80°	0.0	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: P639968

CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7
2.5°	1600.2	1573.0	1558.1	1550.0	1550.0	1539.1	1526.9	1522.9	1540.5	1540.5	1570.3
5°	1441.5	1419.8	1395.4	1380.5	1357.4	1361.5	1347.9	1346.6	1364.2	1372.3	1403.5
7.5°	1331.7	1304.5	1289.6	1280.1	1267.9	1262.5	1250.3	1246.2	1255.7	1269.3	1299.1
10°	1258.4	1254.4	1253.0	1259.8	1259.8	1253.0	1242.2	1235.4	1238.1	1263.9	1297.8
12.5°	1277.4	1285.6	1288.3	1299.1	1304.5	1299.1	1291.0	1293.7	1311.3	1358.8	1409.0
15°	1360.1	1353.4	1350.6	1356.1	1360.1	1354.7	1352.0	1372.3	1433.4	1501.2	1558.1
17.5°	1448.3	1404.9	1385.9	1385.9	1388.6	1385.9	1388.6	1427.9	1526.9	1594.7	1636.8
20°	1493.0	1413.0	1383.2	1376.4	1381.8	1383.2	1392.7	1437.4	1545.9	1593.4	1602.9
22.5°	1479.5	1379.1	1345.2	1339.8	1345.2	1350.6	1360.1	1398.1	1499.8	1524.2	1520.2
25°	1411.7	1312.7	1285.6	1285.6	1297.8	1296.4	1300.5	1327.6	1411.7	1426.6	1419.8
27.5°	1326.2	1232.7	1209.6	1223.2	1234.0	1231.3	1232.7	1255.7	1318.1	1322.2	1315.4
30°	1239.4	1158.1	1136.4	1152.7	1167.6	1164.9	1166.2	1189.3	1228.6	1224.5	1215.0
32.5°	1151.3	1091.6	1075.4	1084.9	1107.9	1105.2	1110.6	1135.0	1149.9	1132.3	1121.5
35°	1069.9	1038.8	1026.5	1032.0	1049.6	1053.7	1063.2	1079.4	1079.4	1057.7	1038.8
37.5°	994.0	989.9	981.8	975.0	991.3	1003.5	1017.1	1036.0	1008.9	977.7	960.1
40°	923.5	941.1	930.3	912.6	922.1	939.8	966.9	981.8	949.3	918.1	888.2
42.5°	858.4	888.2	884.2	862.5	870.6	886.9	918.1	930.3	892.3	857.0	828.6
45°	796.0	838.1	840.8	813.6	821.8	838.1	874.7	878.7	829.9	791.9	771.6
47.5°	741.8	787.9	789.2	768.9	771.6	794.7	828.6	829.9	774.3	739.1	713.3
50°	690.2	743.1	747.2	729.6	732.3	759.4	787.9	782.5	722.8	686.2	663.1
52.5°	627.9	699.7	709.2	701.1	711.9	733.6	751.3	732.3	663.1	626.5	606.2
55°	560.1	653.6	674.0	668.5	680.7	698.4	702.4	690.2	603.5	566.8	547.9
57.5°	481.4	538.4	573.6	562.8	572.3	589.9	602.1	592.6	527.5	499.0	482.8
60°	398.7	436.7	444.8	427.2	419.0	450.2	478.7	466.5	410.9	393.3	374.3
62.5°	291.6	334.9	340.4	317.3	307.8	341.7	366.1	353.9	292.9	273.9	259.0
65°	233.2	273.9	284.8	263.1	257.7	283.4	298.3	268.5	225.1	204.8	188.5
67.5°	153.2	185.8	214.3	212.9	202.1	210.2	199.3	174.9	143.7	132.9	122.0
70°	94.9	113.9	131.5	138.3	137.0	134.3	119.3	101.7	92.2	88.1	82.7
72.5°	73.2	92.2	105.8	109.8	111.2	107.1	94.9	78.7	69.2	63.7	59.7
75°	54.2	69.2	80.0	85.4	88.1	85.4	73.2	62.4	52.9	48.8	44.8
77.5°	19.0	23.1	28.5	31.2	29.8	28.5	25.8	25.8	20.3	19.0	16.3
80°	0.0	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: P639968

CATALOG NUMBER: GWS-SA5C-830-U-SLR-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7	1773.7
2.5°	1604.2	1628.6	1673.4	1714.1	1757.5	1802.2	1851.0	1901.2	1924.3	1921.6
5°	1451.0	1503.9	1577.1	1657.1	1746.6	1842.9	1950.0	2059.9	2107.3	2127.7
7.5°	1354.7	1429.3	1525.6	1627.3	1745.3	1882.2	2043.6	2215.8	2285.0	2308.0
10°	1366.9	1453.7	1533.7	1632.7	1758.8	1936.5	2137.2	2341.9	2423.3	2449.1
12.5°	1465.9	1484.9	1506.6	1588.0	1746.6	1977.2	2222.6	2466.7	2560.3	2586.0
15°	1555.4	1467.3	1426.6	1501.2	1703.2	2005.6	2309.4	2600.9	2704.0	2733.8
17.5°	1559.5	1426.6	1335.7	1394.0	1632.7	2017.8	2394.8	2737.9	2850.5	2878.9
20°	1509.3	1381.8	1265.2	1266.6	1536.4	2015.1	2465.3	2861.3	2987.4	3013.2
22.5°	1436.1	1329.0	1208.3	1166.2	1433.4	2009.7	2542.6	2992.9	3129.8	3154.2
25°	1354.7	1261.1	1154.0	1090.3	1330.3	2015.1	2651.1	3165.1	3315.6	3338.6
27.5°	1266.6	1186.6	1112.0	1060.4	1243.5	2035.5	2781.3	3384.8	3563.8	3588.2
30°	1174.4	1114.7	1084.9	1053.7	1189.3	2040.9	2922.3	3641.1	3867.5	3901.4
32.5°	1083.5	1051.0	1052.3	1057.7	1137.7	2002.9	3051.2	3925.8	4228.2	4282.5
35°	999.4	989.9	1017.1	1044.2	1063.2	1905.3	3163.7	4262.1	4674.4	4730.0
37.5°	927.6	935.7	969.6	996.7	981.8	1767.0	3312.9	4682.5	5173.4	5220.9
40°	858.4	878.7	918.1	930.3	919.4	1605.6	3491.9	5088.0	5606.0	5671.1
42.5°	794.7	809.6	865.2	867.9	901.8	1441.5	3664.1	5524.6	6103.7	6137.6
45°	743.1	740.4	797.4	815.0	924.8	1259.8	3832.3	6106.4	6754.6	6803.4
47.5°	693.0	690.2	703.8	783.8	934.3	1091.6	3999.1	6958.0	7698.4	7782.5
50°	645.5	649.6	607.5	768.9	882.8	962.8	4075.0	7745.9	8556.8	8592.1
52.5°	603.5	588.5	515.3	720.1	773.0	840.8	3859.4	8103.9	9088.4	9188.7
55°	543.8	461.1	424.5	584.5	610.2	733.6	3161.0	7896.4	9134.5	9312.1
57.5°	465.1	362.1	360.7	431.2	431.2	680.7	2024.6	6746.5	7872.0	8183.9
60°	358.0	280.7	298.3	299.7	276.6	496.3	1136.4	4887.3	5820.3	6130.8
62.5°	254.9	214.3	225.1	179.0	158.7	248.2	545.1	2813.8	3592.2	3635.6
65°	170.9	145.1	118.0	99.0	97.6	105.8	225.1	1017.1	1236.7	1395.4
67.5°	112.6	88.1	62.4	62.4	70.5	70.5	85.4	168.2	236.0	215.6
70°	73.2	61.0	39.3	38.0	46.1	46.1	43.4	46.1	48.8	48.8
72.5°	54.2	46.1	23.1	20.3	25.8	27.1	24.4	23.1	23.1	23.1
75°	40.7	32.5	13.6	9.5	12.2	16.3	13.6	9.5	9.5	8.1
77.5°	16.3	12.2	5.4	4.1	6.8	9.5	8.1	4.1	2.7	2.7
80°	1.4	2.7	2.7	2.7	4.1	5.4	6.8	2.7	1.4	1.4
82.5°	0.0	1.4	1.4	1.4	2.7	4.1	5.4	2.7	1.4	1.4
85°	0.0	0.0	0.0	0.0	2.7	4.1	2.7	1.4	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	1.4	4.1	2.7	1.4	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

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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  
 Rf: 81.5  
 Rg: 99.2

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



**Test Conditions**

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.27**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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 W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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			

**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)