

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



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P871078

Luminaire Tested: **EMM2-HSN-SA2A-840-U-T2R-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871078  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2A-840-U-T2R-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 70W 80CRI 4000K  
FITXURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (20) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

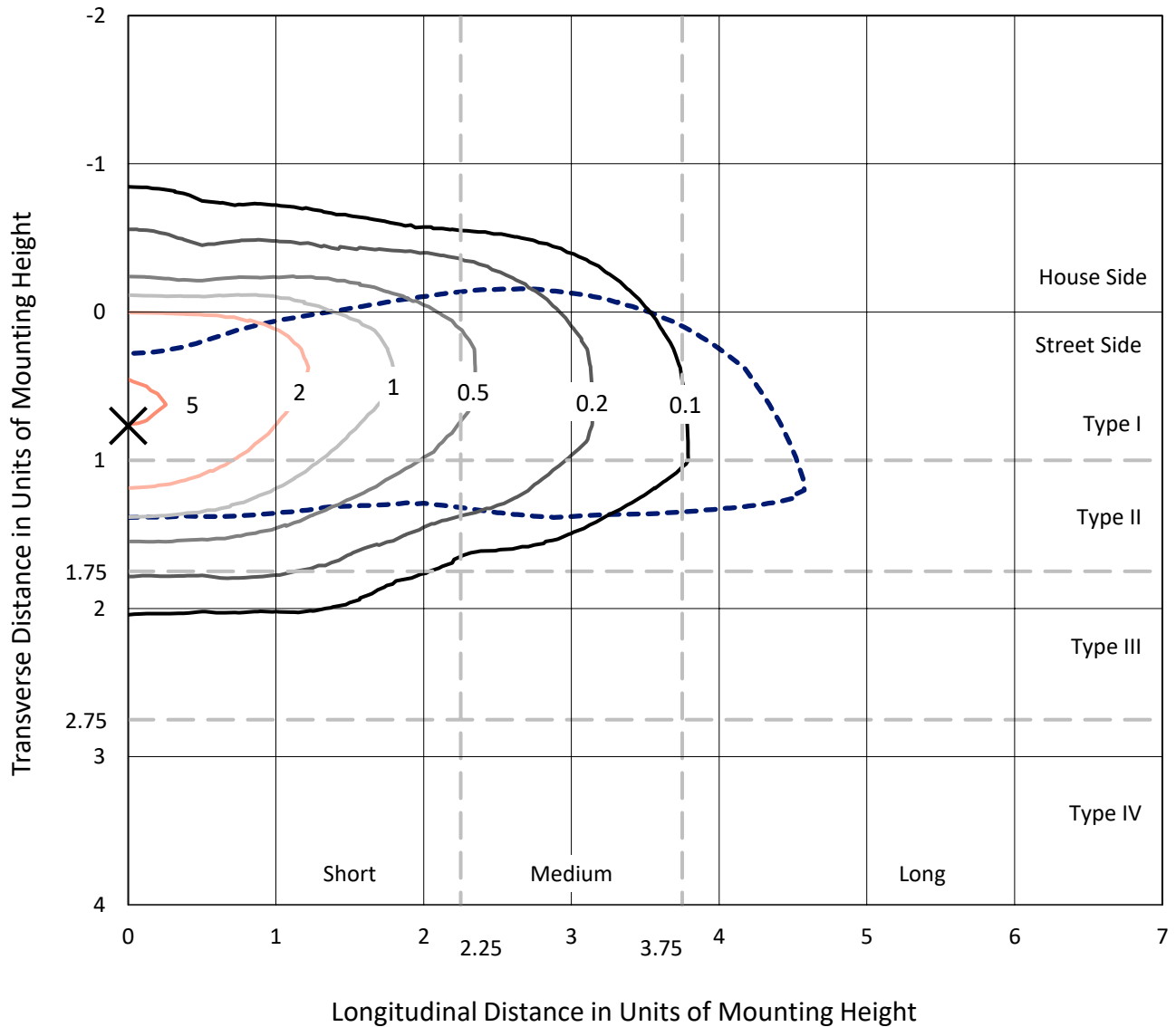
Lumens per Lamp: N/A  
Luminaire Lumens: 6335.8 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 61  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.89%  
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

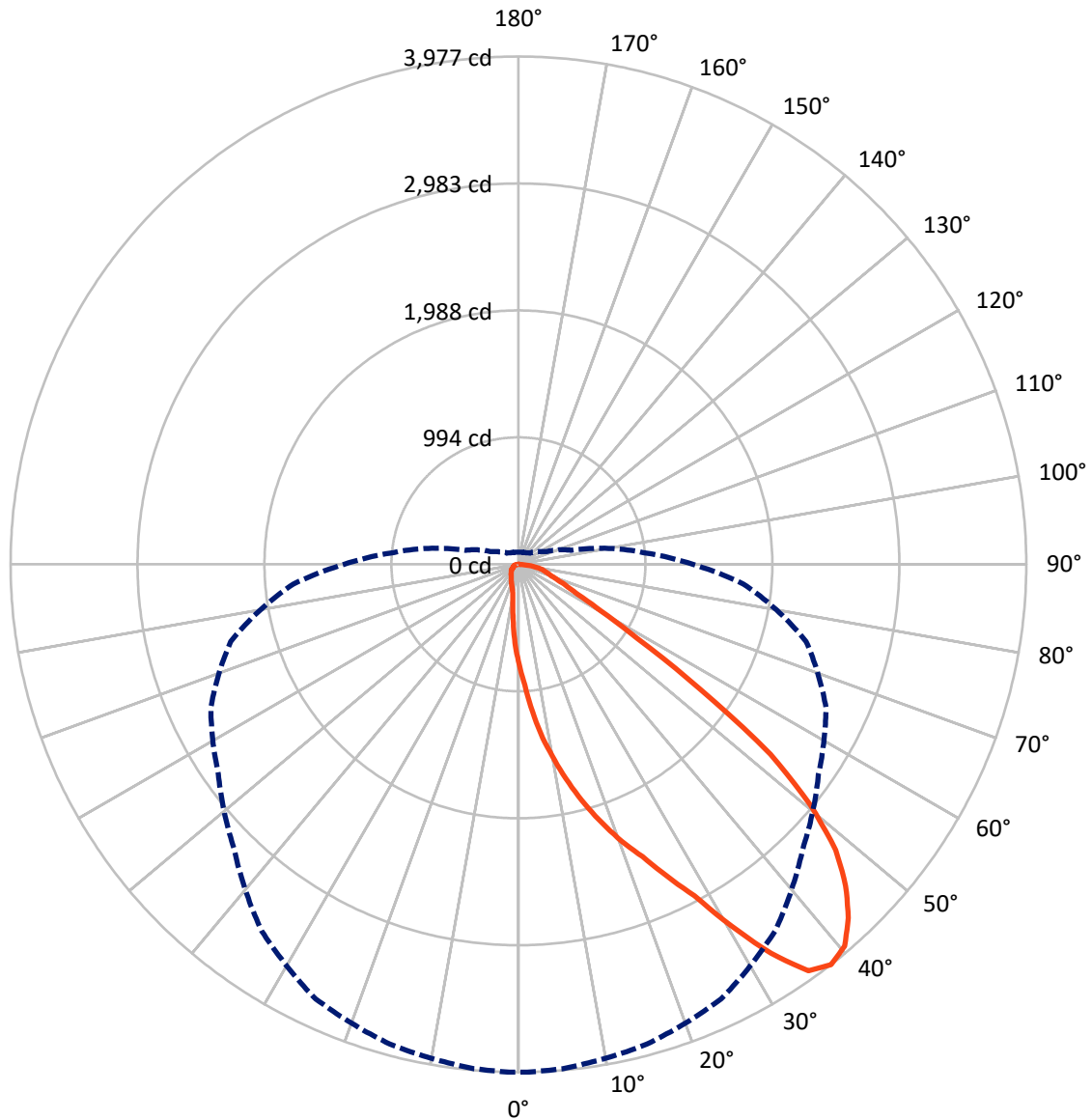
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 37.5-Deg Vertical

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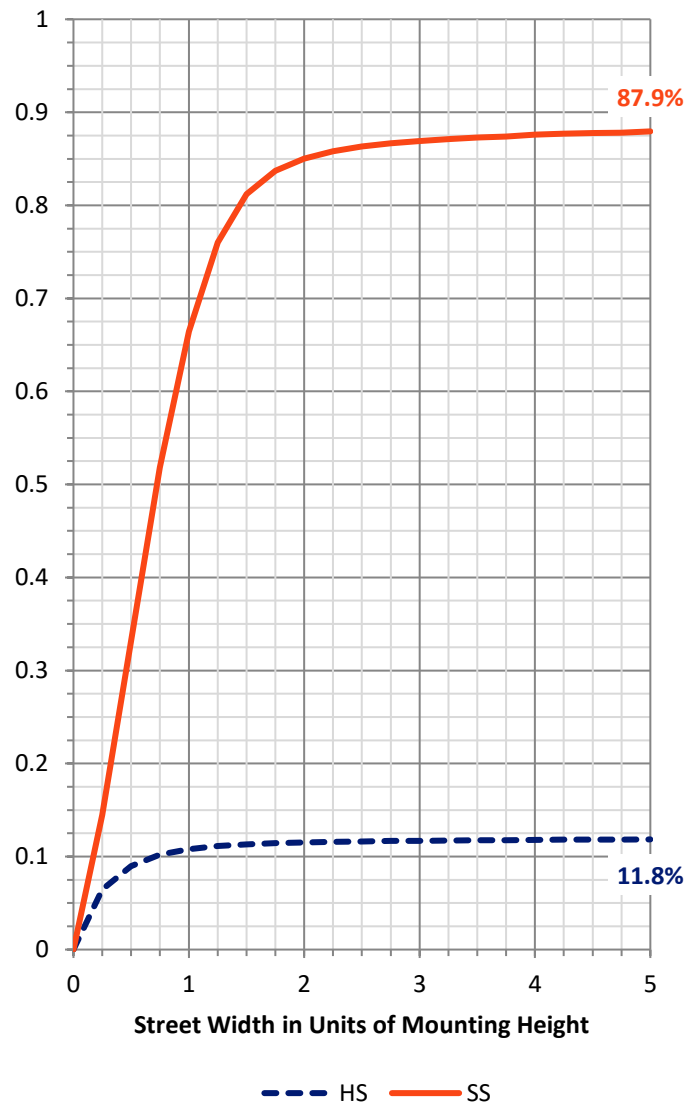
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	755.7	0.0	755.7
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	5580.1	0.0	5580.1
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	6335.8	0.0	6335.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.8	1.2
10°-20°	275.3	4.3
20°-30°	568.1	9.0
30°-40°	999.5	15.8
40°-50°	1357.1	21.4
50°-60°	1344.6	21.2
60°-70°	1035.2	16.3
70°-80°	600.8	9.5
80°-90°	76.4	1.2
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°	6335.8	100.0
0°-180°	6335.8	100.0



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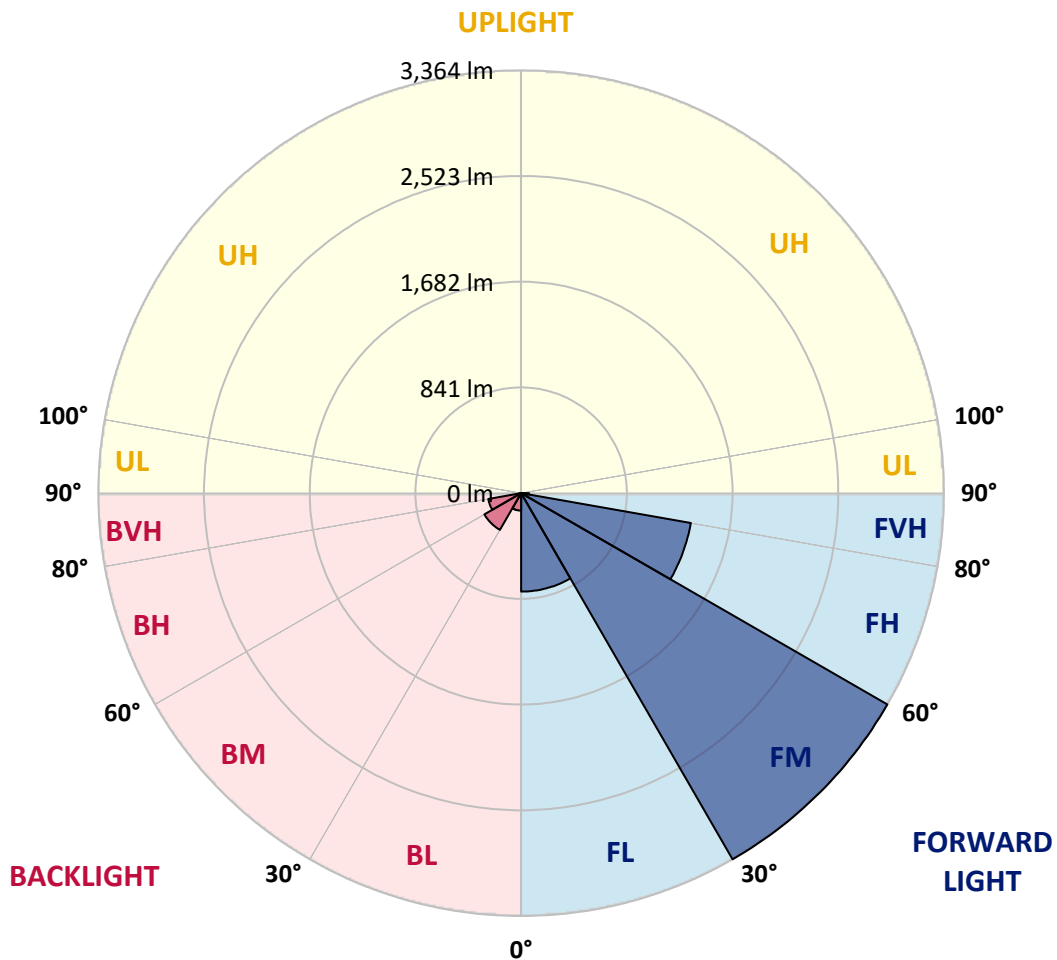
CATALOG NUMBER: EMM2-HSN-SA2A-840-U-T2R-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	783.2	12.4			
FM	(30°-60°)	3363.8	53.1			
FH	(60°-80°)	1370.8	21.6			G1/1800
FVH	(80°-90°)	62.3	1.0			G1/100
BL	(0°-30°)	138.9	2.2	B1/500		
BM	(30°-60°)	337.5	5.3	B1/1000		
BH	(60°-80°)	265.1	4.2	B1/500		G1/500
BVH	(80°-90°)	14.1	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1
2.5°	946.0	960.2	949.5	940.7	928.3	915.9	898.3	878.8	854.1	824.0	797.5
5°	1160.0	1167.0	1163.5	1158.2	1119.3	1082.2	1045.0	999.1	935.4	878.8	818.7
7.5°	1373.9	1370.4	1361.5	1345.6	1310.3	1267.8	1200.6	1124.6	1034.4	935.4	841.7
10°	1561.4	1566.7	1559.6	1534.8	1490.6	1432.3	1350.9	1264.3	1142.3	1004.4	873.5
12.5°	1757.6	1761.2	1761.2	1708.1	1678.1	1587.9	1501.2	1384.5	1248.4	1089.2	910.6
15°	1950.4	1943.3	1943.3	1907.9	1854.9	1754.1	1656.8	1515.4	1361.5	1168.8	953.1
17.5°	2134.3	2137.8	2121.9	2083.0	2031.7	1934.4	1814.2	1658.6	1472.9	1264.3	997.3
20°	2316.4	2305.8	2298.7	2259.8	2205.0	2090.1	1975.1	1798.3	1603.8	1372.1	1059.2
22.5°	2486.1	2491.4	2473.8	2411.9	2360.6	2256.3	2125.4	1962.7	1741.7	1480.0	1126.4
25°	2705.4	2687.7	2703.6	2629.4	2549.8	2426.0	2277.5	2116.6	1892.0	1612.6	1209.5
27.5°	2938.8	2949.4	2940.6	2859.2	2751.4	2585.2	2429.6	2258.0	2044.1	1738.2	1303.2
30°	3287.1	3281.8	3283.6	3161.6	2983.0	2785.0	2594.0	2406.6	2196.1	1892.0	1412.8
32.5°	3632.0	3651.4	3603.7	3495.8	3290.7	2991.9	2758.4	2549.8	2342.9	2024.6	1524.2
35°	3909.6	3904.3	3884.8	3764.6	3561.2	3271.2	2945.9	2708.9	2498.5	2187.3	1648.0
37.5°	3976.8	3976.8	3964.4	3890.1	3755.7	3504.6	3149.2	2868.1	2657.7	2332.3	1768.2
40°	3932.6	3923.7	3916.6	3867.1	3794.6	3646.1	3363.2	3032.5	2827.4	2519.7	1900.9
42.5°	3787.6	3789.3	3780.5	3752.2	3713.3	3656.7	3495.8	3207.6	2993.6	2696.6	2031.7
45°	3593.1	3596.6	3586.0	3582.4	3563.0	3563.0	3525.9	3345.5	3151.0	2876.9	2174.9
47.5°	3343.7	3342.0	3336.7	3327.8	3366.7	3409.2	3442.8	3423.3	3290.7	3071.4	2304.0
50°	2963.6	2960.0	2975.9	3020.1	3115.6	3209.3	3308.4	3400.3	3391.5	3251.8	2459.6
52.5°	2470.2	2447.2	2464.9	2601.1	2797.3	3006.0	3145.7	3290.7	3442.8	3442.8	2613.4
55°	1727.6	1747.0	1757.6	1957.4	2344.7	2703.6	2949.4	3136.8	3423.3	3594.8	2783.2
57.5°	1099.8	1106.9	1138.7	1354.5	1808.9	2258.0	2693.0	3000.7	3350.8	3722.1	2953.0
60°	740.9	716.1	740.9	864.7	1301.4	1771.8	2316.4	2829.2	3246.5	3814.1	3140.4
62.5°	523.4	521.6	528.7	601.2	928.3	1331.5	1844.3	2597.5	3163.4	3819.4	3280.1
65°	422.6	410.2	415.5	456.2	622.4	976.1	1352.7	2178.5	3089.1	3725.7	3349.0
67.5°	339.5	334.2	337.7	364.3	466.8	733.8	953.1	1656.8	2931.7	3566.5	3310.1
70°	277.6	279.4	281.1	307.7	371.3	555.2	680.8	1137.0	2595.8	3386.2	3135.1
72.5°	240.5	240.5	242.2	259.9	311.2	440.3	514.6	739.1	2100.7	3191.7	2813.3
75°	212.2	212.2	212.2	228.1	265.2	353.6	399.6	505.7	1508.3	2830.9	2327.0
77.5°	183.9	185.7	185.7	199.8	228.1	275.8	307.7	350.1	961.9	2187.3	1761.2
80°	141.5	141.5	143.2	159.1	194.5	215.7	226.3	247.6	505.7	1373.9	1117.5
82.5°	99.0	100.8	100.8	102.6	130.8	132.6	122.0	123.8	183.9	456.2	424.4
85°	10.6	12.4	14.1	14.1	23.0	28.3	30.1	28.3	30.1	53.0	53.0
87.5°	0.0	0.0	0.0	0.0	1.8	3.5	3.5	5.3	5.3	5.3	5.3
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1
2.5°	783.3	770.9	744.4	721.4	700.2	682.5	670.2	654.2	641.9	641.9	648.9
5°	788.6	760.3	705.5	654.2	613.6	574.7	539.3	516.3	498.6	488.0	488.0
7.5°	795.7	753.3	670.2	592.4	528.7	466.8	412.0	385.5	359.0	350.1	351.9
10°	809.9	749.7	638.3	537.5	442.1	364.3	311.2	282.9	268.8	261.7	261.7
12.5°	825.8	749.7	604.7	475.7	364.3	284.7	252.9	231.6	224.6	221.0	217.5
15°	847.0	753.3	576.4	410.2	297.1	240.5	217.5	205.1	198.0	194.5	194.5
17.5°	871.7	756.8	546.4	357.2	252.9	212.2	194.5	185.7	178.6	175.1	175.1
20°	903.6	765.6	516.3	309.4	221.0	194.5	178.6	169.8	162.7	160.9	159.1
22.5°	942.5	779.8	486.3	270.5	199.8	176.8	162.7	155.6	150.3	146.8	146.8
25°	988.4	797.5	463.3	242.2	183.9	164.4	152.1	143.2	137.9	136.2	136.2
27.5°	1052.1	827.5	440.3	221.0	171.5	152.1	139.7	132.6	127.3	125.5	123.8
30°	1112.2	864.7	429.7	215.7	162.7	141.5	132.6	123.8	118.5	116.7	114.9
32.5°	1190.0	907.1	422.6	215.7	159.1	134.4	123.8	116.7	111.4	109.6	107.9
35°	1273.1	956.6	422.6	222.8	160.9	129.1	116.7	109.6	104.3	100.8	100.8
37.5°	1363.3	1006.1	426.1	233.4	166.2	125.5	109.6	102.6	97.3	95.5	95.5
40°	1458.8	1073.3	433.2	242.2	171.5	123.8	102.6	97.3	91.9	88.4	88.4
42.5°	1547.2	1126.4	445.6	252.9	175.1	122.0	97.3	91.9	86.6	84.9	84.9
45°	1649.8	1184.7	456.2	259.9	175.1	116.7	91.9	86.6	83.1	81.3	79.6
47.5°	1731.1	1232.5	461.5	263.5	171.5	111.4	86.6	83.1	79.6	76.0	77.8
50°	1830.1	1283.7	470.4	265.2	164.4	104.3	83.1	77.8	74.3	72.5	72.5
52.5°	1925.6	1335.0	477.4	261.7	155.6	95.5	77.8	74.3	70.7	67.2	67.2
55°	2038.8	1391.6	488.0	256.4	141.5	86.6	72.5	69.0	63.7	61.9	60.1
57.5°	2167.9	1465.9	496.9	245.8	123.8	77.8	69.0	63.7	56.6	53.0	53.0
60°	2286.3	1550.7	503.9	219.3	107.9	72.5	63.7	58.4	51.3	49.5	49.5
62.5°	2413.6	1639.2	503.9	173.3	91.9	65.4	60.1	54.8	47.7	46.0	46.0
65°	2502.1	1718.7	488.0	129.1	77.8	61.9	58.4	51.3	44.2	42.4	42.4
67.5°	2526.8	1768.2	443.8	91.9	67.2	58.4	54.8	47.7	42.4	38.9	38.9
70°	2447.2	1729.3	362.5	70.7	58.4	53.0	49.5	44.2	38.9	37.1	37.1
72.5°	2219.1	1580.8	270.5	60.1	51.3	49.5	46.0	40.7	37.1	35.4	35.4
75°	1858.4	1313.8	191.0	53.0	47.7	44.2	40.7	37.1	33.6	33.6	33.6
77.5°	1407.5	949.5	118.5	47.7	40.7	40.7	37.1	33.6	31.8	30.1	30.1
80°	908.9	599.4	67.2	33.6	28.3	30.1	26.5	23.0	23.0	21.2	21.2
82.5°	385.5	236.9	35.4	19.5	14.1	12.4	8.8	8.8	7.1	7.1	7.1
85°	38.9	14.1	7.1	5.3	5.3	3.5	3.5	3.5	3.5	1.8	1.8
87.5°	5.3	5.3	5.3	3.5	3.5	3.5	1.8	1.8	1.8	1.8	1.8
90°	0.0	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

Streetworks

Report Number: SP1-2407-157-8

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-840-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-840-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-8  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 09/05/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-40-840-U-5WQ**  
 Description: Epic Modern Light Square 40W 5WQ Optic

**Spectral Parameters**

CCT (K): 3996  
 CIE u': 0.2245  
 CIE v': 0.5031  
 Duv: 0.0012  
 CIE x: 0.3815  
 CIE y: 0.3799  
 CIE z: 0.2386  
 Peak Wavelength (nm): 449  
 Dominant Wavelength (nm): 578  
 Purity: 28.49233  
 Rf: 82.6  
 Rg: 95.1

CRI (Ra):	80.6		
R1:	78.1	R9:	-5.8
R2:	87.1	R10:	70.3
R3:	94.5	R11:	78.7
R4:	79.7	R12:	60.5
R5:	78.7	R13:	80.2
R6:	82.7	R14:	97.2
R7:	84.3	R15:	70.6
R8:	59.5		



**Test Conditions**

Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.3

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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 4000K 4-step quadrangle

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**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	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.66**

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	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



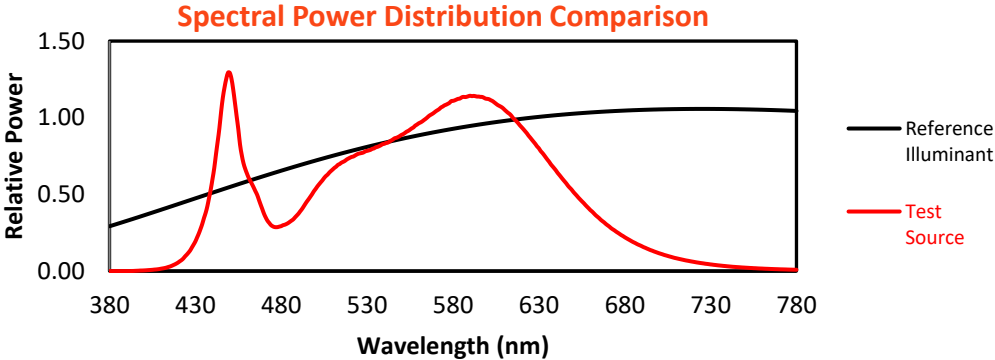
Melanopic Lumens: NR

M/P: 3.37

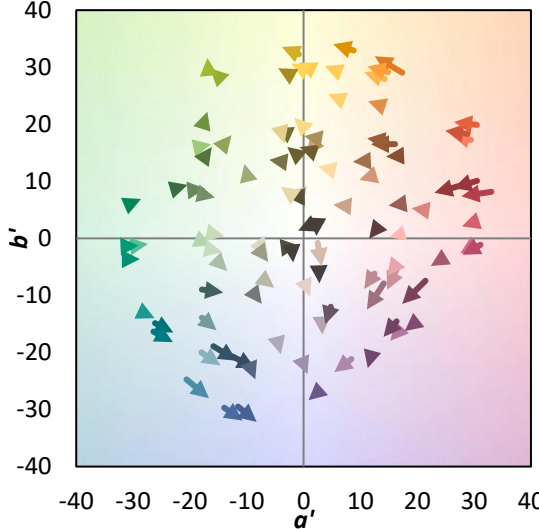
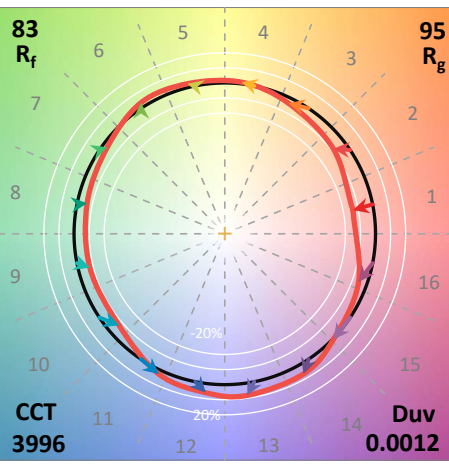
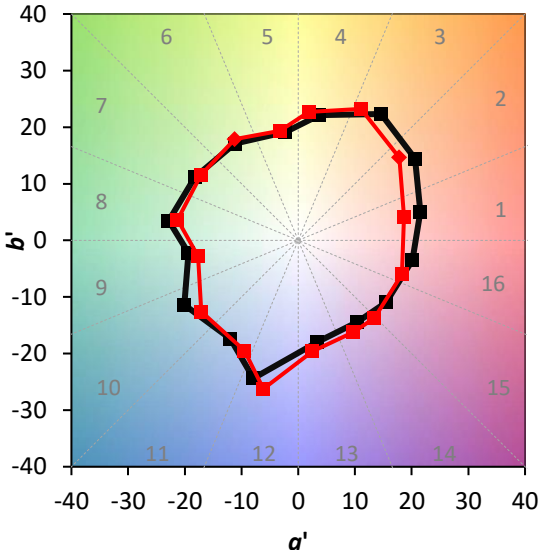
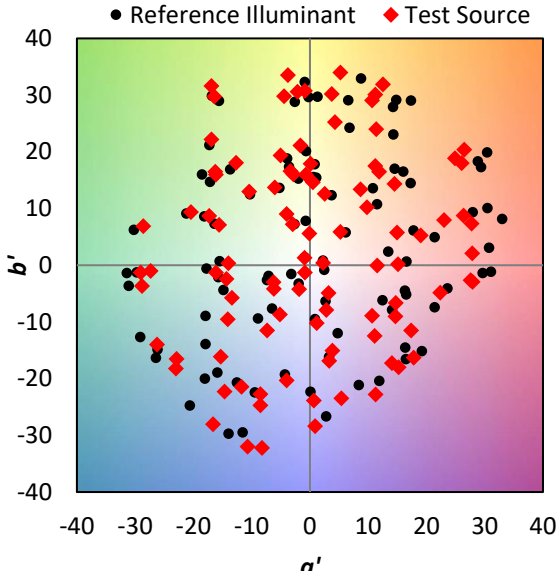
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

**Summary**

$R_f = 82.6$   
 $R_g = 95.1$   
 CIE  $R_a = 80.6$   
 $R_9 = -5.8$



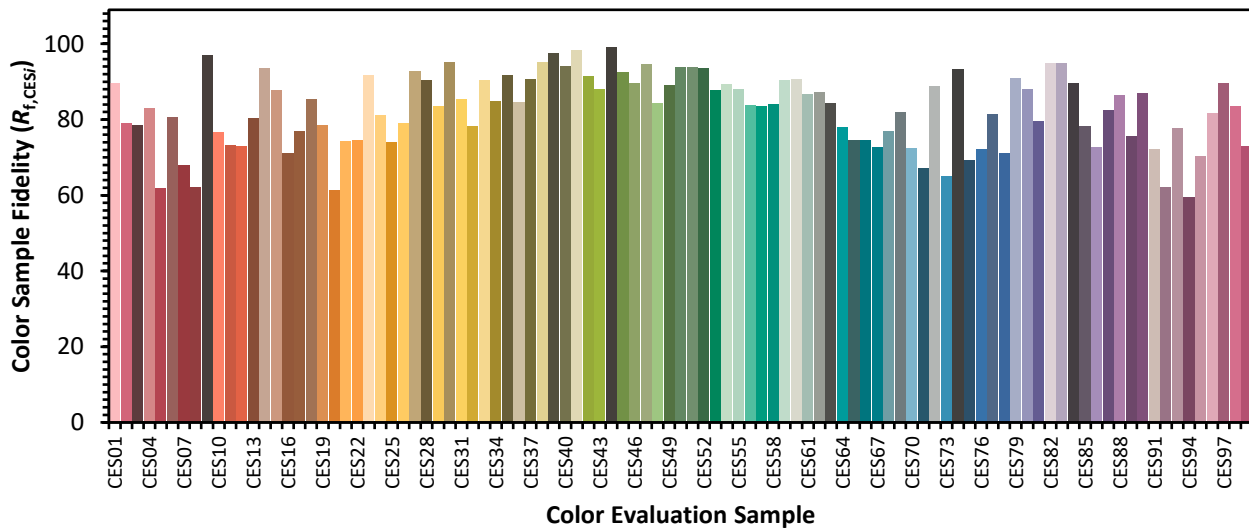
**Color Vector Graphics**





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

CES01 = 85	CES26 = 79	CES51 = 94	CES76 = 72
CES02 = 61	CES27 = 93	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 88	CES78 = 71
CES04 = 69	CES29 = 83	CES54 = 89	CES79 = 91
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 50	CES31 = 86	CES56 = 84	CES81 = 80
CES07 = 40	CES32 = 78	CES57 = 84	CES82 = 95
CES08 = 39	CES33 = 90	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 85	CES59 = 90	CES84 = 90
CES10 = 74	CES35 = 92	CES60 = 91	CES85 = 78
CES11 = 57	CES36 = 85	CES61 = 87	CES86 = 73
CES12 = 63	CES37 = 91	CES62 = 87	CES87 = 83
CES13 = 42	CES38 = 95	CES63 = 84	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 78	CES89 = 76
CES15 = 71	CES40 = 94	CES65 = 75	CES90 = 87
CES16 = 46	CES41 = 98	CES66 = 75	CES91 = 72
CES17 = 49	CES42 = 92	CES67 = 73	CES92 = 62
CES18 = 56	CES43 = 88	CES68 = 77	CES93 = 78
CES19 = 71	CES44 = 99	CES69 = 82	CES94 = 60
CES20 = 65	CES45 = 93	CES70 = 72	CES95 = 70
CES21 = 86	CES46 = 90	CES71 = 67	CES96 = 82
CES22 = 78	CES47 = 95	CES72 = 89	CES97 = 90
CES23 = 91	CES48 = 84	CES73 = 65	CES98 = 84
CES24 = 90	CES49 = 89	CES74 = 93	CES99 = 73
CES25 = 71	CES50 = 94	CES75 = 69	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)