

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: P596114

Luminaire Tested: **MSA-SA4A-AMB-U-T1**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596114
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-AMB-U-T1
Description: POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE I OPTICS.
Light Source: (64) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

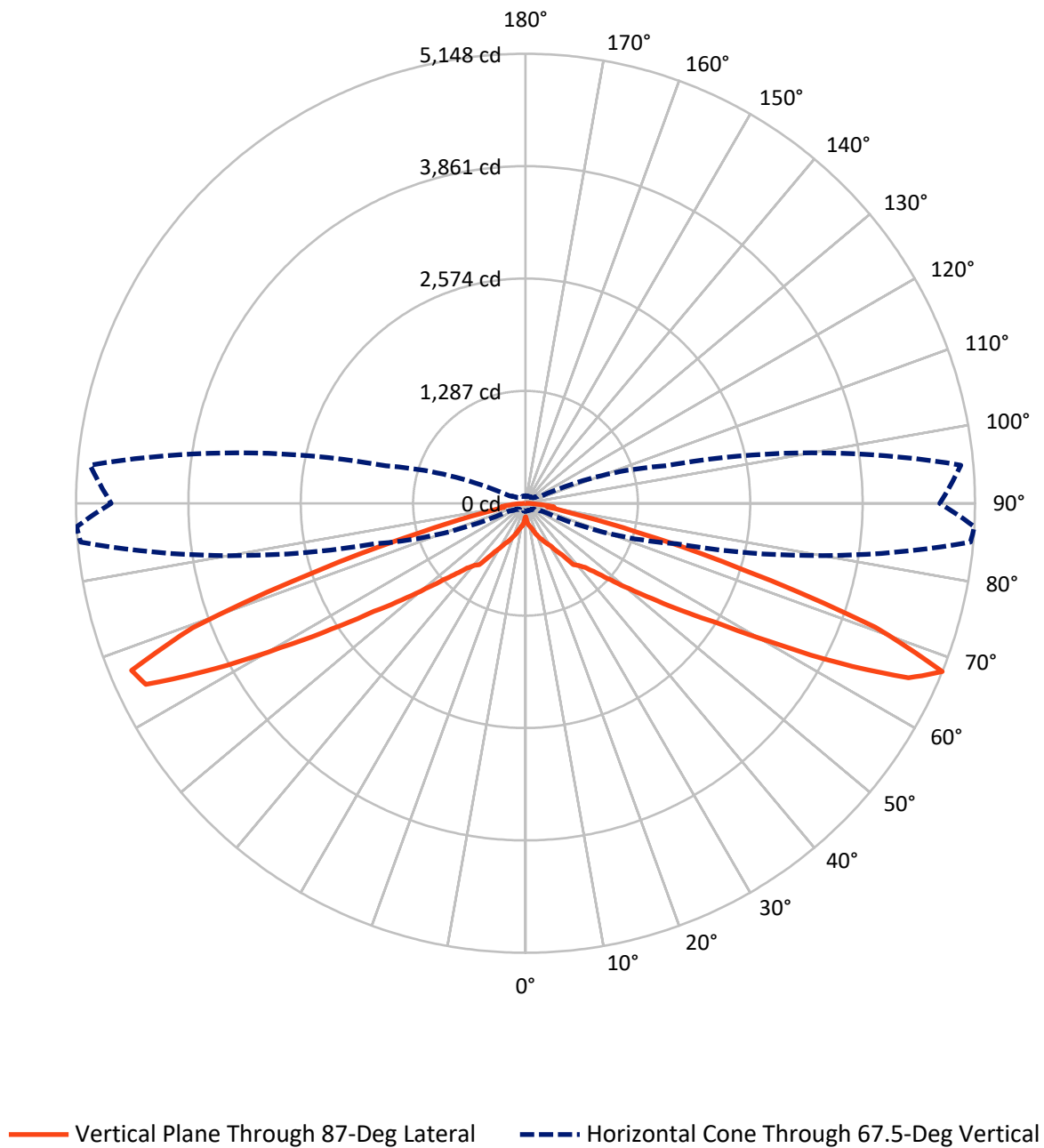
Lumens per Lamp: N/A
Luminaire Lumens: 2915.1 lumens
Efficiency: N/A
Efficacy: 36.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 79
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: 28.75 FT



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Luminous Intensity Polar Plot



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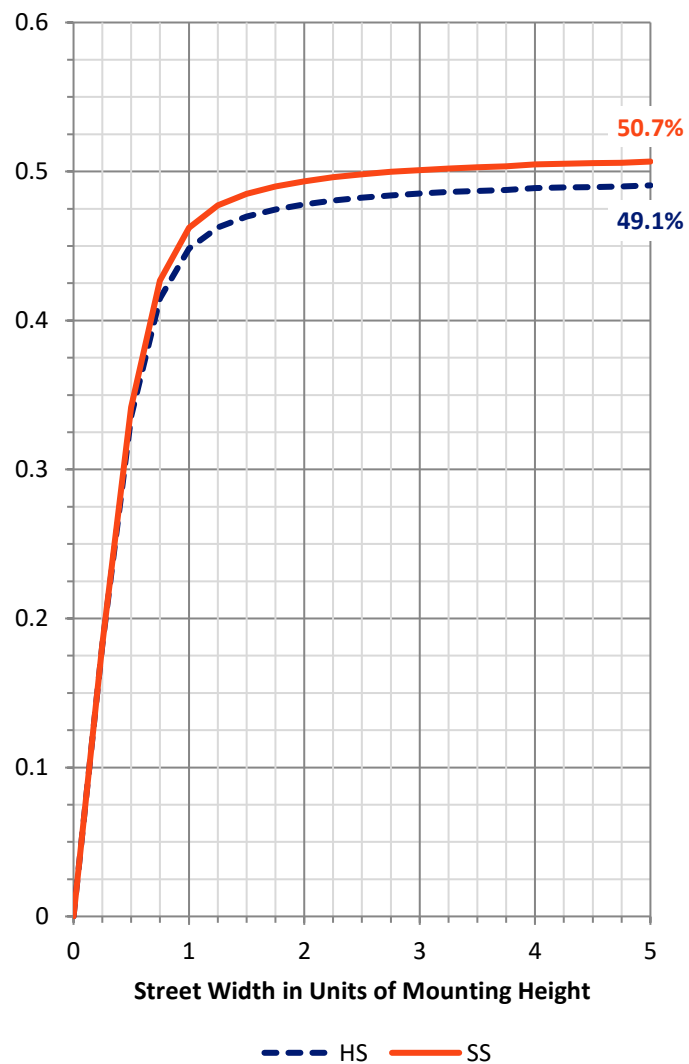
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1442.7	0.0	1442.7
	% Fixture	49.5	0.0	49.5
Street Side	Lumens	1472.4	0.0	1472.4
	% Fixture	50.5	0.0	50.5
Total	Lumens	2915.1	0.0	2915.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.4	0.7
10°-20°	97.4	3.3
20°-30°	196.5	6.7
30°-40°	322.2	11.1
40°-50°	475.3	16.3
50°-60°	645.3	22.1
60°-70°	827.6	28.4
70°-80°	293.0	10.1
80°-90°	37.6	1.3
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°	2915.1	100.0
0°-180°	2915.1	100.0

Coefficient of Utilization



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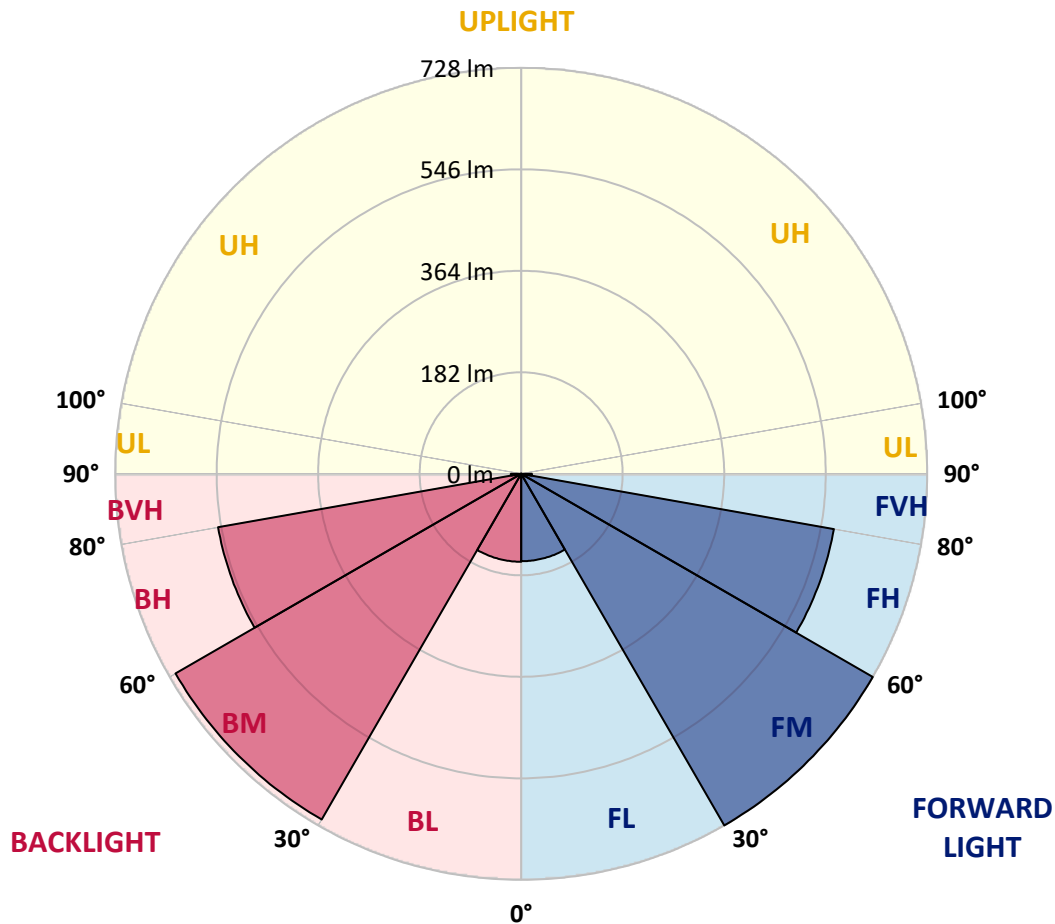
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	156.7	5.4			
FM	(30°-60°)	727.5	25.0			
FH	(60°-80°)	569.0	19.5			G0/660
FVH	(80°-90°)	19.2	0.7			G1/100
BL	(0°-30°)	157.6	5.4	B1/500		
BM	(30°-60°)	715.2	24.5	B1/1000		
BH	(60°-80°)	551.5	18.9	B2/1000		G2/1000
BVH	(80°-90°)	18.4	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
0°	155	155	155	155	155	155	155	155	155	155	155
2.5°	191	175	163	153	153	160	162	153	160	170	177
5°	238	215	202	185	164	162	163	184	207	216	225
7.5°	275	253	249	220	188	191	197	221	240	248	249
10°	284	278	266	241	240	248	229	240	256	262	265
12.5°	294	292	305	300	313	313	304	291	292	283	285
15°	310	313	323	333	349	377	357	337	328	314	313
17.5°	330	334	338	358	387	410	409	388	378	369	362
20°	344	350	348	354	401	437	451	418	407	398	393
22.5°	360	353	341	354	391	429	472	448	431	436	435
25°	349	351	346	361	398	440	489	502	482	473	477
27.5°	347	345	324	358	384	421	507	555	506	513	521
30°	334	341	316	351	381	421	527	598	555	573	563
32.5°	334	332	317	334	366	444	543	636	654	653	649
35°	334	335	313	329	361	430	565	715	755	760	728
37.5°	344	332	319	331	362	457	597	789	878	906	891
40°	330	323	306	329	350	439	588	876	985	947	936
42.5°	307	293	290	316	344	415	591	943	1124	1011	1005
45°	272	251	262	293	331	418	582	1017	1276	1124	1130
47.5°	222	214	216	247	294	399	544	1036	1535	1291	1309
50°	178	171	176	201	252	345	528	1046	1748	1505	1536
52.5°	143	138	143	162	212	284	462	990	1986	1780	1813
55°	125	120	121	133	166	229	374	896	2283	2132	2163
57.5°	115	111	110	116	135	181	278	748	2585	2617	2579
60°	109	105	104	106	116	141	217	532	2766	3337	3210
62.5°	106	102	100	100	107	121	164	363	2789	4250	4025
65°	100	95	94	95	101	108	135	267	2498	5071	4821
67.5°	93	89	87	89	95	98	114	209	1791	5115	5148
70°	85	81	81	83	89	90	99	160	1043	4018	4249
72.5°	76	73	73	76	81	81	87	121	584	2495	2619
75°	67	65	65	68	72	71	77	92	328	1224	1317
77.5°	55	54	55	60	62	59	65	74	178	519	497
80°	41	40	43	48	50	46	51	57	95	215	253
82.5°	29	29	29	34	35	31	37	41	53	196	328
85°	16	17	17	19	21	19	22	23	30	100	168
87.5°	5	6	7	8	9	6	9	10	11	19	18
90°	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°	155	155	155	155	155	155	155	155	155	155	155
2.5°	183	165	167	158	155	162	152	152	164	158	164
5°	234	211	204	190	171	164	171	188	218	222	227
7.5°	261	247	243	218	192	187	205	227	249	264	281
10°	270	260	256	239	253	259	258	255	276	282	286
12.5°	287	292	292	292	317	327	319	317	308	315	313
15°	316	318	336	345	371	377	362	339	333	327	324
17.5°	358	363	370	395	414	420	385	350	347	342	333
20°	391	400	414	436	451	426	388	348	347	352	351
22.5°	435	436	445	453	453	427	397	356	345	352	354
25°	477	484	487	501	481	419	383	358	343	363	355
27.5°	516	518	509	552	494	409	388	359	333	356	353
30°	556	597	565	602	521	416	370	344	328	358	353
32.5°	645	649	670	645	544	434	369	346	326	348	345
35°	728	761	756	706	545	438	382	336	320	349	348
37.5°	887	872	885	780	557	435	362	331	319	332	340
40°	935	912	995	865	570	425	344	324	294	310	315
42.5°	995	1000	1164	937	592	411	333	301	273	275	286
45°	1129	1124	1305	986	560	402	314	271	244	244	252
47.5°	1292	1278	1532	1018	539	372	281	231	205	206	214
50°	1507	1511	1756	993	501	327	242	197	170	167	175
52.5°	1801	1789	2000	927	432	274	203	161	141	137	143
55°	2105	2147	2215	800	347	222	162	132	120	119	124
57.5°	2553	2689	2465	674	270	175	133	113	106	108	112
60°	3073	3383	2576	498	212	142	114	102	99	101	105
62.5°	3760	4232	2571	363	168	120	104	96	93	95	99
65°	4482	5042	2310	272	131	104	97	91	88	90	94
67.5°	4745	5006	1653	199	112	94	91	86	83	84	87
70°	4181	3994	1003	148	95	85	85	80	77	77	80
72.5°	2707	2367	574	117	82	77	78	73	70	70	72
75°	1380	1140	325	95	72	67	70	66	62	61	62
77.5°	479	496	194	77	61	57	59	56	51	50	51
80°	285	218	114	59	48	44	46	44	39	35	36
82.5°	418	190	65	41	34	28	33	30	25	25	25
85°	223	116	30	20	18	15	17	15	13	14	12
87.5°	16	19	10	8	7	5	7	7	6	5	3
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)