

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: P596104

Luminaire Tested: **MSA-SA4A-AMB-U-SL2-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-18)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-AMB-U-SL2-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: (64) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2322 lumens
Efficiency: N/A
Efficacy: 29.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

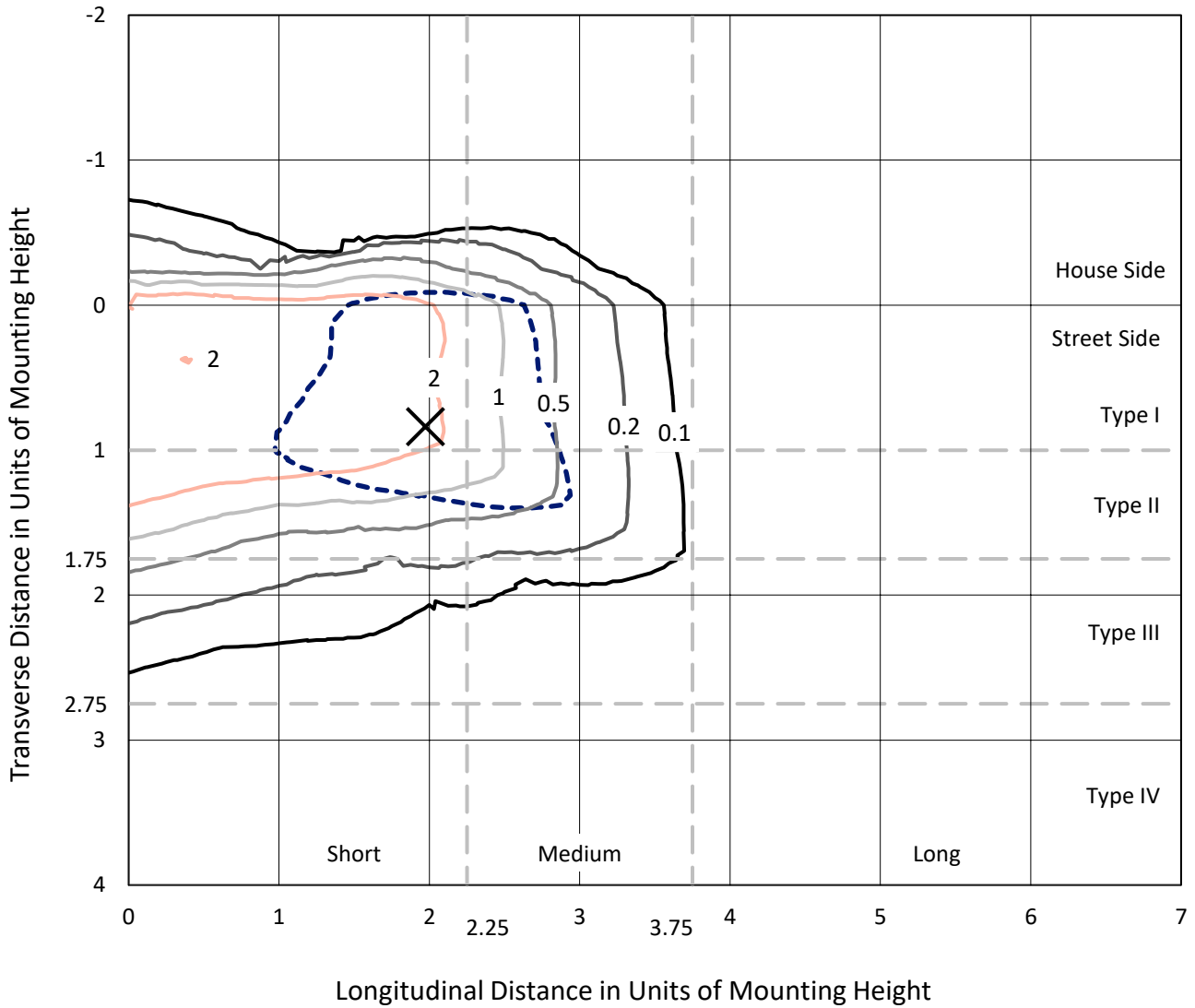
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

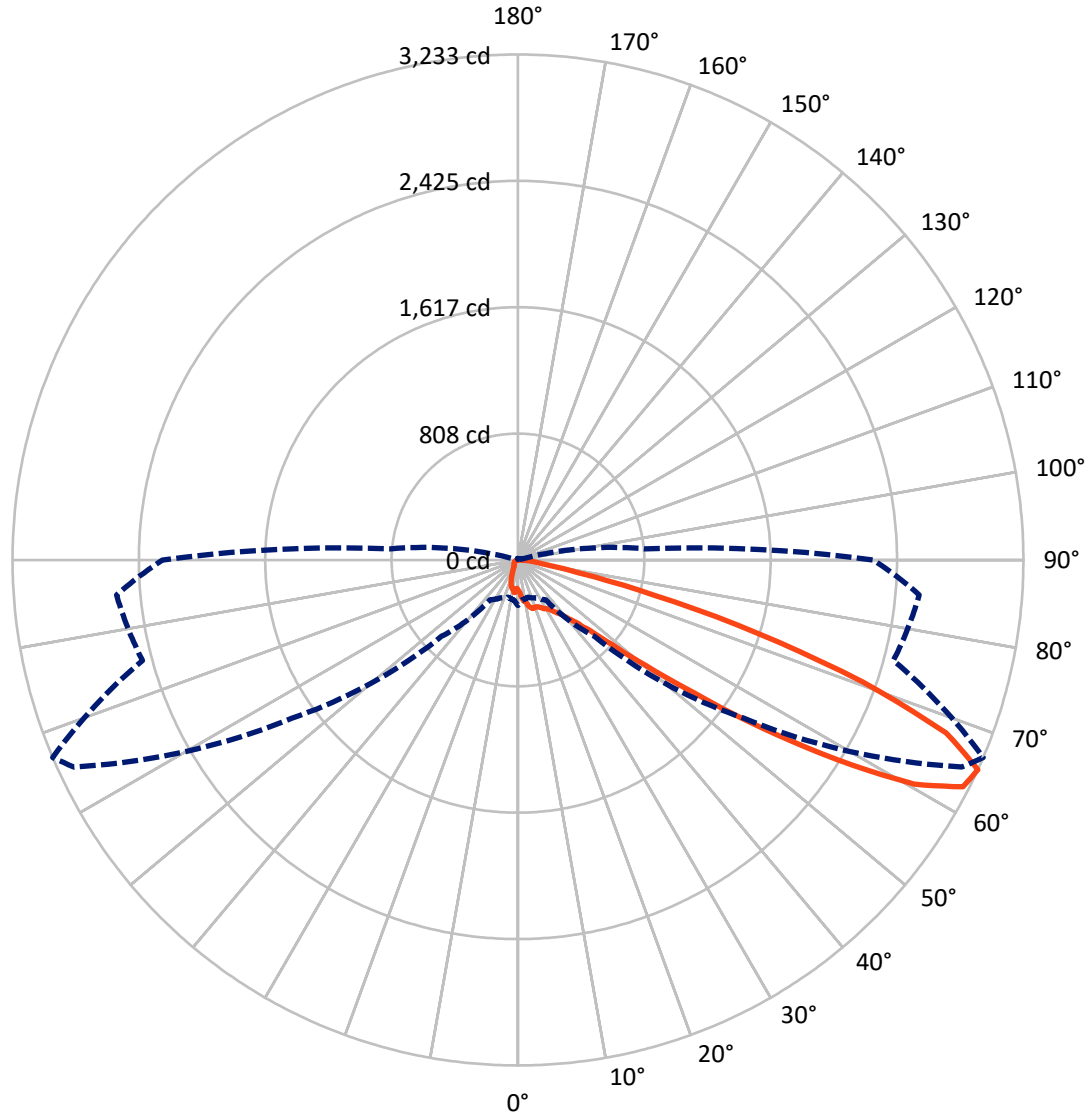
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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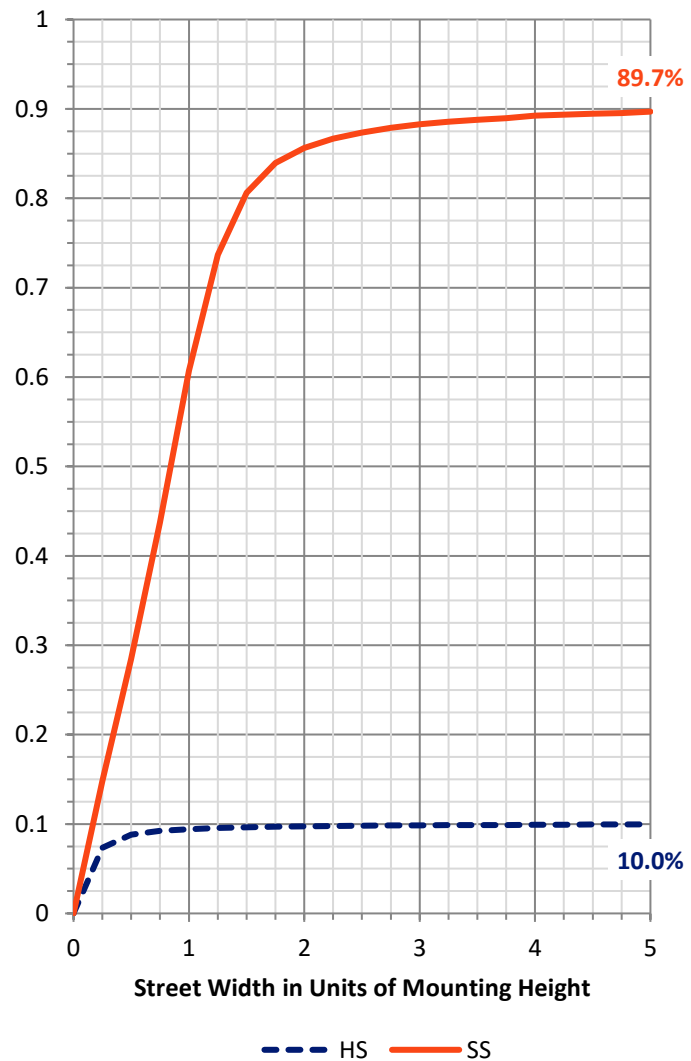
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	234.2	0.0	234.2
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	2087.8	0.0	2087.8
	% Fixture	89.9	0.0	89.9
Total	Lumens	2322.0	0.0	2322.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.2	0.8
10°-20°	56.5	2.4
20°-30°	98.1	4.2
30°-40°	175.4	7.6
40°-50°	369.1	15.9
50°-60°	670.2	28.9
60°-70°	687.2	29.6
70°-80°	220.6	9.5
80°-90°	25.7	1.1
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°	2322.0	100.0
0°-180°	2322.0	100.0

Coefficient of Utilization

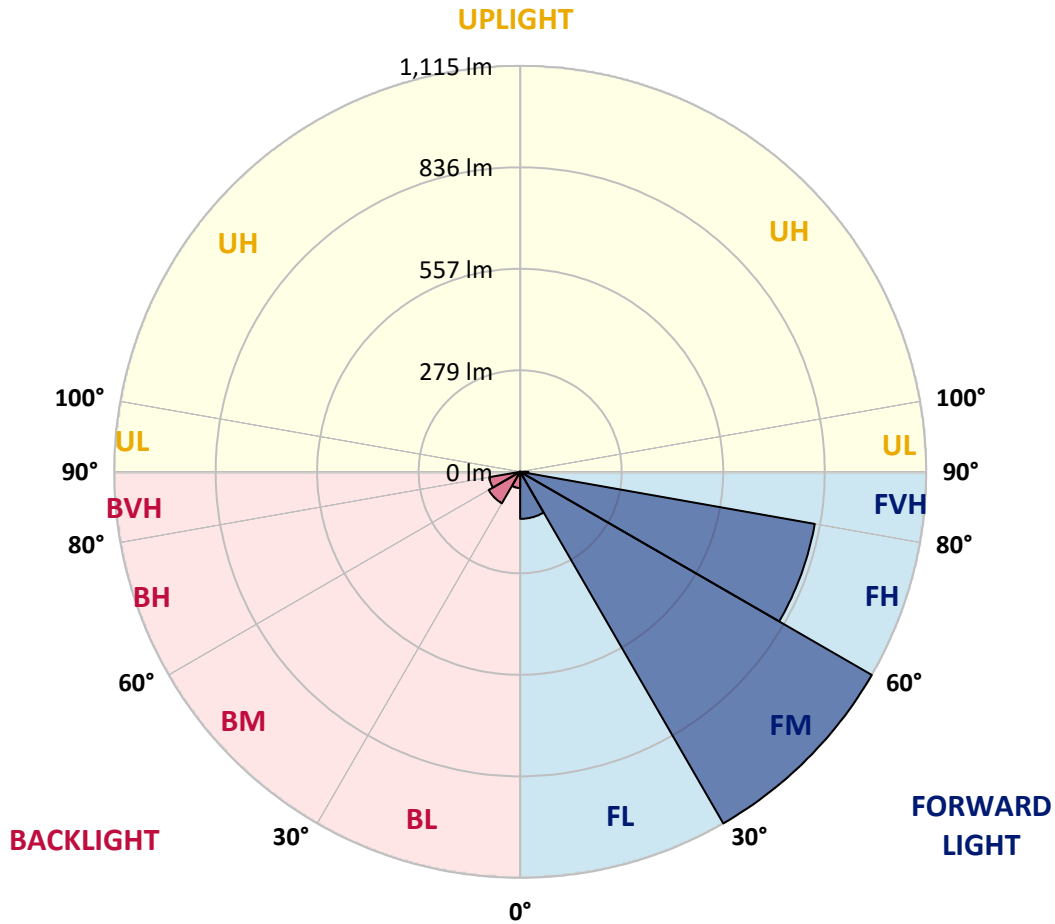


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	129.2	5.6			
FM (30°-60°)	1114.8	48.0			
FH (60°-80°)	821.4	35.4			G1/1800
FVH (80°-90°)	22.4	1.0			G1/100
BL (0°-30°)	44.6	1.9	B0/110		
BM (30°-60°)	99.9	4.3	B0/220		
BH (60°-80°)	86.4	3.7	B0/110		G0/110
BVH (80°-90°)	3.3	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	194	194	194	194	194	194	194	194	194	194	194
2.5°	250	215	203	194	193	213	212	204	208	210	221
5°	269	234	239	214	194	191	201	236	238	267	270
7.5°	269	246	249	223	196	196	223	268	265	298	303
10°	239	230	228	211	212	234	236	264	270	310	310
12.5°	216	216	230	224	238	258	269	298	302	332	333
15°	225	226	228	234	245	270	285	315	318	361	354
17.5°	248	251	247	252	259	275	292	318	326	388	398
20°	271	273	265	249	269	276	297	312	319	396	428
22.5°	307	299	276	263	266	273	292	313	325	393	463
25°	334	329	308	292	280	285	298	330	336	413	472
27.5°	374	367	325	327	302	284	307	347	352	406	489
30°	424	430	374	371	341	300	330	356	361	413	509
32.5°	515	509	454	412	384	353	335	366	378	443	544
35°	592	588	527	501	431	377	380	395	409	474	562
37.5°	741	711	634	588	531	453	437	438	436	504	616
40°	881	850	762	710	613	545	482	481	488	545	655
42.5°	1057	1014	918	887	761	616	544	544	544	606	724
45°	1170	1099	1038	1043	964	798	677	660	641	690	839
47.5°	1244	1168	1108	1129	1150	1090	859	841	806	847	970
50°	1209	1145	1091	1118	1293	1369	1143	1101	1062	1046	1148
52.5°	1114	1025	950	1029	1319	1550	1569	1426	1413	1319	1413
55°	925	846	788	848	1203	1627	1983	2014	1902	1693	1801
57.5°	736	672	619	640	920	1586	2253	2598	2411	2025	2210
60°	547	491	463	484	653	1294	2319	3022	2911	2301	2477
62.5°	399	354	330	331	444	942	2190	3170	3195	2484	2651
65°	292	259	247	268	311	691	1764	3133	3233	2486	2577
67.5°	220	198	185	225	273	373	1315	3018	2954	2243	2135
70°	172	155	147	185	261	291	805	2473	2341	1716	1532
72.5°	107	94	108	151	247	271	422	1689	1599	1143	886
75°	57	52	63	104	216	264	267	993	900	610	404
77.5°	34	33	36	59	155	242	228	466	398	222	147
80°	18	16	22	35	80	227	197	228	171	62	49
82.5°	7	7	12	24	43	144	171	148	108	25	32
85°	2	3	7	14	21	58	129	95	70	14	20
87.5°	2	2	4	5	6	7	22	16	15	7	9
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°	194	194	194	194	194	194	194	194	194	194	194
2.5°	230	197	205	176	171	174	168	166	176	181	191
5°	285	250	234	199	165	139	141	156	163	167	177
7.5°	313	280	256	197	144	118	117	120	122	123	127
10°	308	283	240	176	140	114	93	84	80	78	77
12.5°	323	288	239	168	120	89	66	53	45	43	44
15°	333	309	239	153	95	65	46	40	39	40	40
17.5°	366	340	224	130	73	46	40	39	39	40	39
20°	394	351	215	102	54	41	38	36	36	37	36
22.5°	427	356	190	79	42	37	34	32	32	33	34
25°	437	361	163	62	37	33	31	29	28	29	29
27.5°	450	352	133	49	35	30	28	26	24	25	25
30°	447	366	110	40	33	28	25	23	21	22	22
32.5°	474	347	92	38	31	26	23	21	20	21	21
35°	481	347	81	36	30	24	21	19	18	19	19
37.5°	513	342	69	35	28	23	20	18	17	18	18
40°	551	341	58	33	26	22	18	17	16	16	17
42.5°	609	364	51	32	24	20	17	16	15	15	15
45°	691	379	46	31	23	19	16	15	14	14	14
47.5°	780	390	44	29	22	18	15	14	13	13	13
50°	910	423	42	27	21	18	15	13	12	11	11
52.5°	1142	486	39	25	20	17	14	12	11	11	11
55°	1495	647	37	23	19	16	13	11	10	10	10
57.5°	1868	792	34	22	17	14	12	11	10	9	9
60°	2169	896	31	19	16	13	11	10	9	9	8
62.5°	2345	905	28	18	15	12	10	10	9	8	7
65°	2274	816	25	16	13	11	10	9	9	8	7
67.5°	1953	695	22	15	12	11	9	9	8	8	6
70°	1408	518	20	14	12	10	9	9	8	8	6
72.5°	807	295	18	13	11	9	10	10	9	8	6
75°	384	107	16	12	10	9	10	10	9	8	6
77.5°	118	41	14	11	9	8	10	9	8	6	5
80°	42	18	11	9	8	5	8	8	7	6	4
82.5°	30	11	9	8	6	3	7	7	7	6	4
85°	18	7	7	7	6	3	6	6	6	6	4
87.5°	5	6	7	6	5	3	6	6	6	6	4
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)