

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: P188975

Luminaire Tested: **ABB-B2-LED-D1-S**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P188975
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34804)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ABB-B2-LED-D1-S
Description: ARBOR OUTDOOR ARCHITECTURAL BOLLARD
70 CRI, 4000K LEDS AND SYMMETRIC OPTIC, GRAPHITE METALLIC PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1256.4 lumens
Efficiency: N/A
Efficacy: 39.3 lumens/watt
Luminous Opening: Circular (Dia: 4.75' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

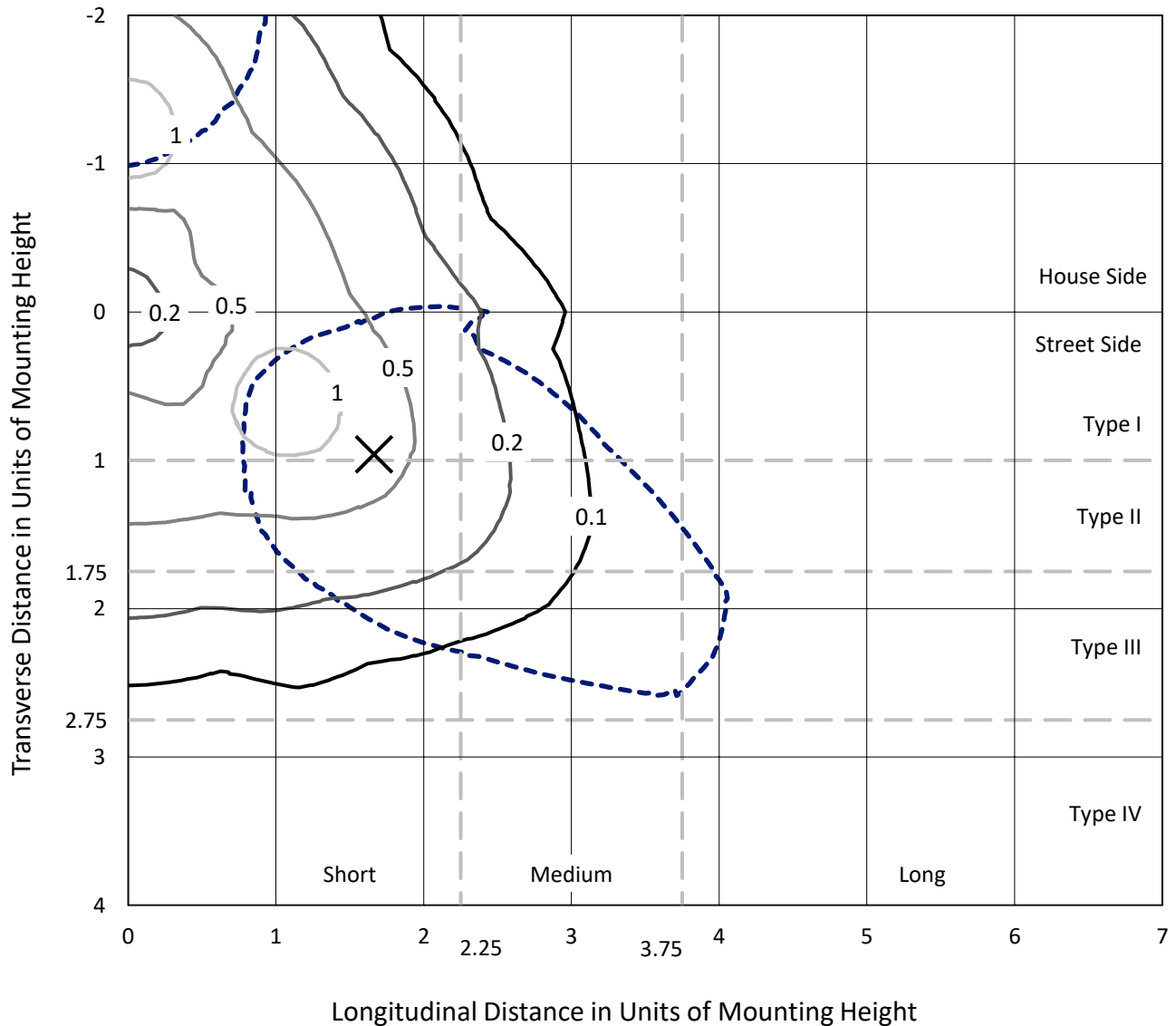
Input Watts (W): 32
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

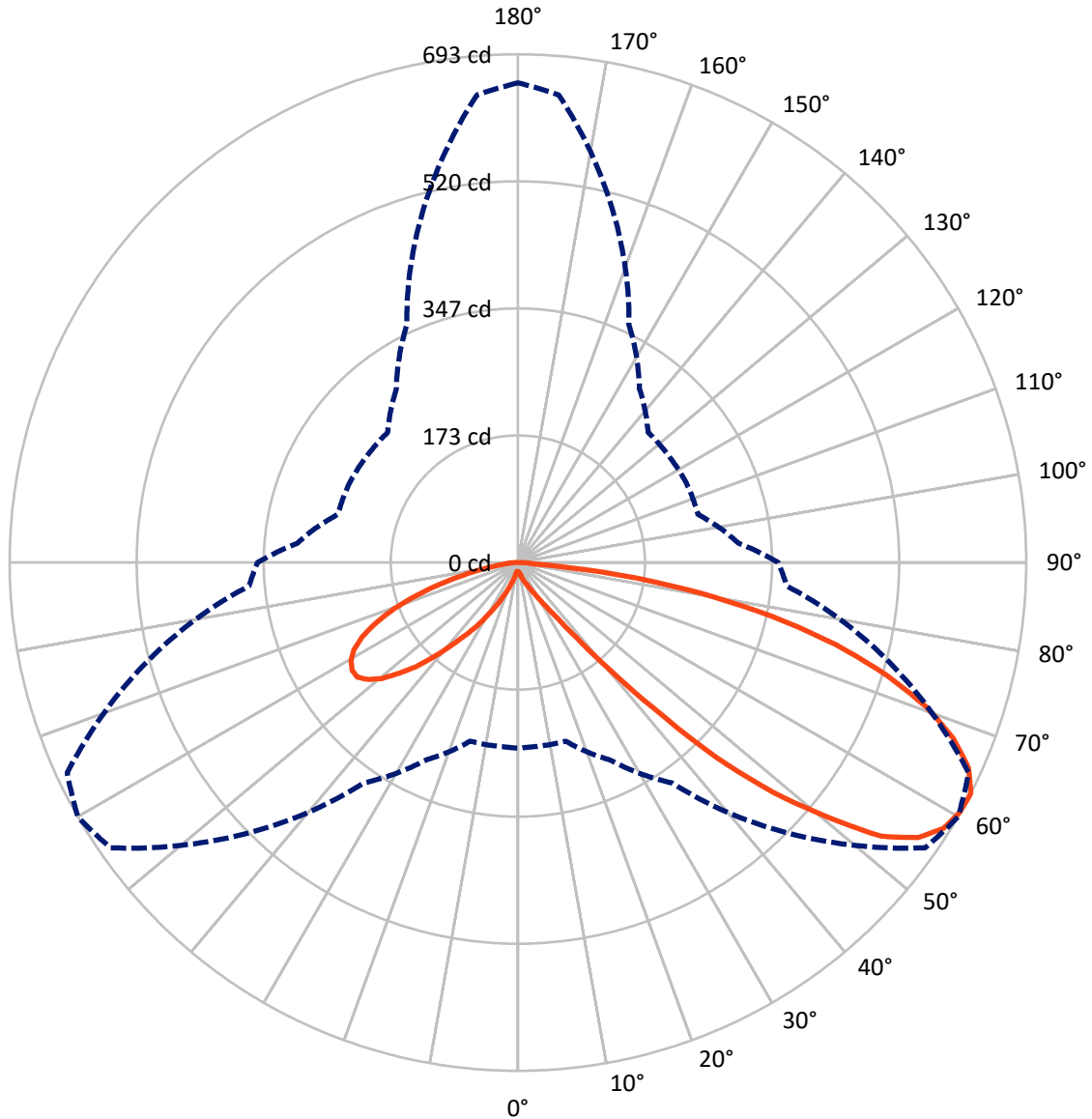
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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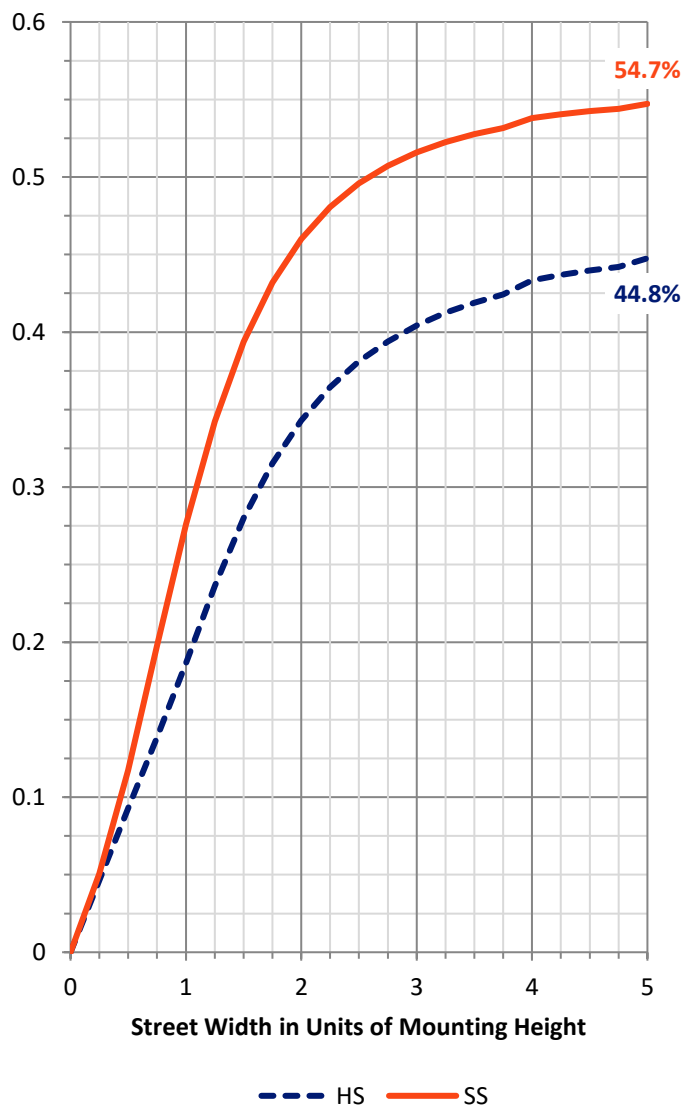
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	565.1	0.0	565.1
	% Fixture	45.0	0.0	45.0
Street Side	Lumens	691.3	0.0	691.3
	% Fixture	55.0	0.0	55.0
Total	Lumens	1256.4	0.0	1256.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.1
10°-20°	6.9	0.6
20°-30°	21.7	1.7
30°-40°	63.5	5.1
40°-50°	186.3	14.8
50°-60°	336.1	26.8
60°-70°	366.3	29.2
70°-80°	235.8	18.8
80°-90°	38.5	3.1
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°	1256.4	100.0
0°-180°	1256.4	100.0

Coefficient of Utilization



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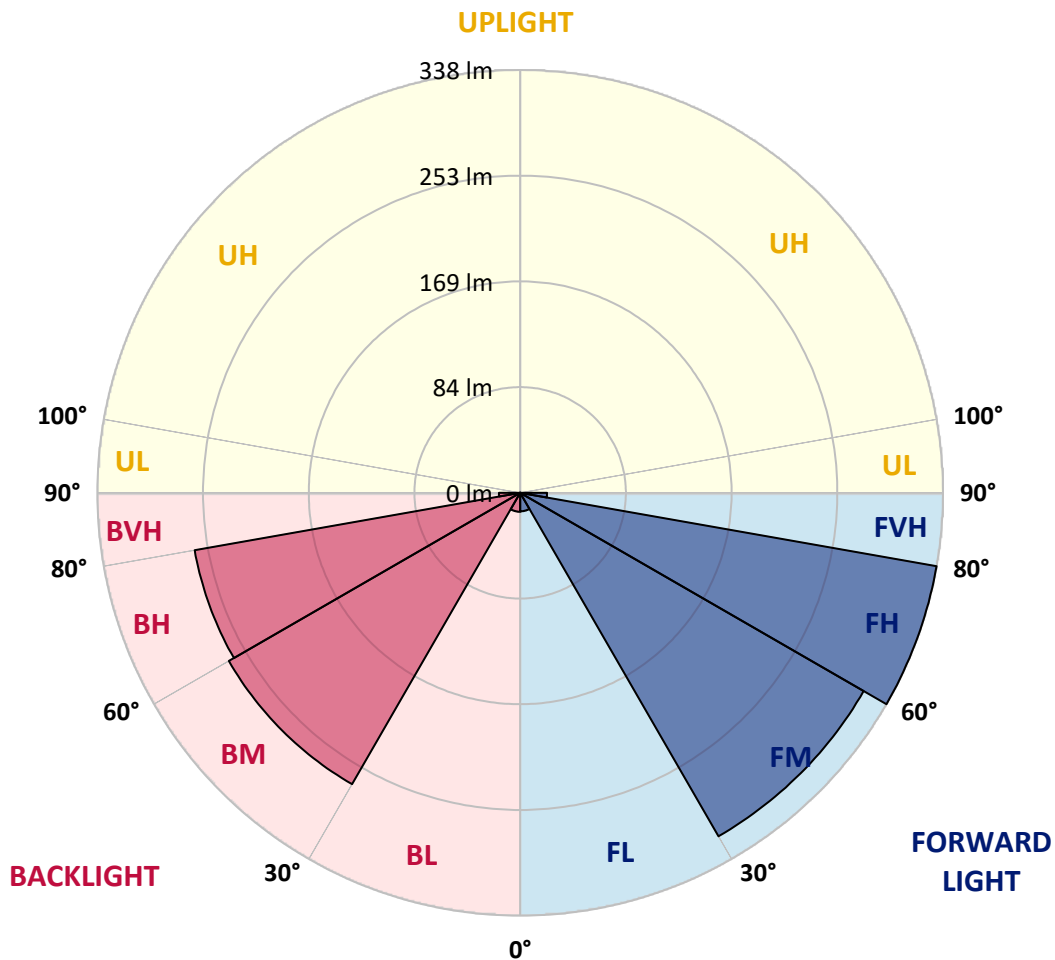
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	14.8	1.2			
FM (30°-60°)	317.0	25.2			
FH (60°-80°)	338.0	26.9			G0/660
FVH (80°-90°)	21.5	1.7			G1/100
BL (0°-30°)	15.2	1.2	B0/110		
BM (30°-60°)	268.9	21.4	B1/1000		
BH (60°-80°)	264.2	21.0	B1/500		G1/500
BVH (80°-90°)	17.0	1.3			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	14	14	14	14	14	14	14	14	14	14	14
2.5°	13	13	13	13	14	14	14	14	14	14	14
5°	12	12	12	13	13	13	13	13	13	13	13
7.5°	14	14	14	15	15	15	15	15	15	15	14
10°	17	17	17	17	17	17	17	17	17	17	17
12.5°	20	20	21	21	20	20	20	19	20	20	20
15°	25	25	25	24	24	23	22	22	22	23	23
17.5°	30	30	29	28	27	27	26	26	26	26	27
20°	37	37	35	33	32	30	30	30	30	30	31
22.5°	46	45	42	38	36	35	34	34	34	35	36
25°	57	56	50	45	42	40	40	40	40	40	42
27.5°	69	67	61	52	49	47	48	48	48	47	48
30°	83	81	73	62	57	57	58	59	58	57	57
32.5°	97	96	86	75	68	70	74	74	72	71	67
35°	113	112	103	91	84	88	95	94	96	90	83
37.5°	130	130	123	110	104	119	129	130	131	120	104
40°	151	149	146	136	130	159	183	190	186	163	132
42.5°	173	173	172	166	166	217	264	271	264	223	171
45°	198	200	199	195	206	278	360	378	364	285	210
47.5°	220	221	225	225	247	336	448	468	442	346	250
50°	240	242	248	251	286	397	532	544	532	404	292
52.5°	257	257	263	272	319	452	600	620	601	458	323
55°	266	268	272	287	346	497	645	662	647	499	350
57.5°	267	268	273	293	362	522	672	684	670	523	364
60°	263	262	265	298	370	528	679	692	676	530	372
62.5°	253	252	252	297	367	522	678	693	678	524	368
65°	233	233	230	294	352	502	662	675	659	504	355
67.5°	209	208	203	285	327	466	629	640	625	468	330
70°	178	177	172	266	295	416	574	591	572	419	299
72.5°	145	143	143	236	257	356	510	526	510	363	259
75°	108	107	116	201	213	288	430	448	435	292	215
77.5°	74	74	87	152	164	213	348	355	343	220	166
80°	46	48	56	96	111	140	239	251	247	142	112
82.5°	27	28	30	39	50	65	131	140	134	71	53
85°	14	13	13	12	13	14	18	19	19	15	13
87.5°	11	10	10	9	10	10	13	13	13	10	10
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°	14	14	14	14	14	14	14	14	14	14	14
2.5°	14	14	14	14	13	13	13	13	13	13	14
5°	12	12	12	12	12	12	12	12	12	12	12
7.5°	14	14	14	14	14	14	14	14	14	14	14
10°	17	17	17	16	16	16	16	16	16	16	16
12.5°	20	20	20	20	19	20	19	19	18	18	18
15°	23	24	25	24	24	24	23	22	21	21	21
17.5°	28	28	29	29	29	28	27	25	24	24	24
20°	32	33	35	37	36	34	32	29	28	28	28
22.5°	37	38	42	45	45	41	37	34	32	32	32
25°	43	44	50	56	56	50	42	39	37	37	38
27.5°	49	52	60	67	67	60	50	46	44	45	45
30°	59	62	71	80	81	72	61	55	54	53	55
32.5°	71	74	84	97	97	85	74	65	67	69	68
35°	85	90	101	112	114	104	90	81	85	89	88
37.5°	105	109	122	130	131	124	108	101	113	121	121
40°	130	134	145	151	151	147	135	127	156	174	178
42.5°	165	166	173	174	175	172	165	164	210	251	262
45°	198	197	199	200	199	199	194	203	273	346	360
47.5°	230	227	225	222	220	224	219	240	326	433	449
50°	260	254	250	243	243	246	245	279	382	507	523
52.5°	289	272	265	259	259	261	264	308	435	569	584
55°	310	289	274	269	269	269	279	334	473	611	627
57.5°	330	296	274	270	269	270	285	350	497	632	647
60°	345	301	266	264	264	264	290	359	504	638	652
62.5°	355	302	254	254	252	251	289	358	498	640	654
65°	358	299	233	235	235	230	286	344	479	627	640
67.5°	348	291	208	210	209	203	279	324	445	596	606
70°	324	272	177	180	181	176	261	292	399	547	562
72.5°	286	242	148	145	146	145	233	258	346	490	501
75°	237	206	122	109	109	118	197	215	280	418	427
77.5°	182	157	91	77	75	88	153	167	212	334	346
80°	117	104	61	47	48	61	101	115	139	236	245
82.5°	49	42	32	29	28	32	46	55	67	133	141
85°	11	12	13	13	13	12	11	12	12	15	16
87.5°	8	9	10	10	10	9	8	8	9	11	11
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)