

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: STREETWORKS

Report Number: P214949

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214949  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-50-D-U-T4W-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4226.1 lumens  
Efficiency: N/A  
Efficacy: 79.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G2

Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

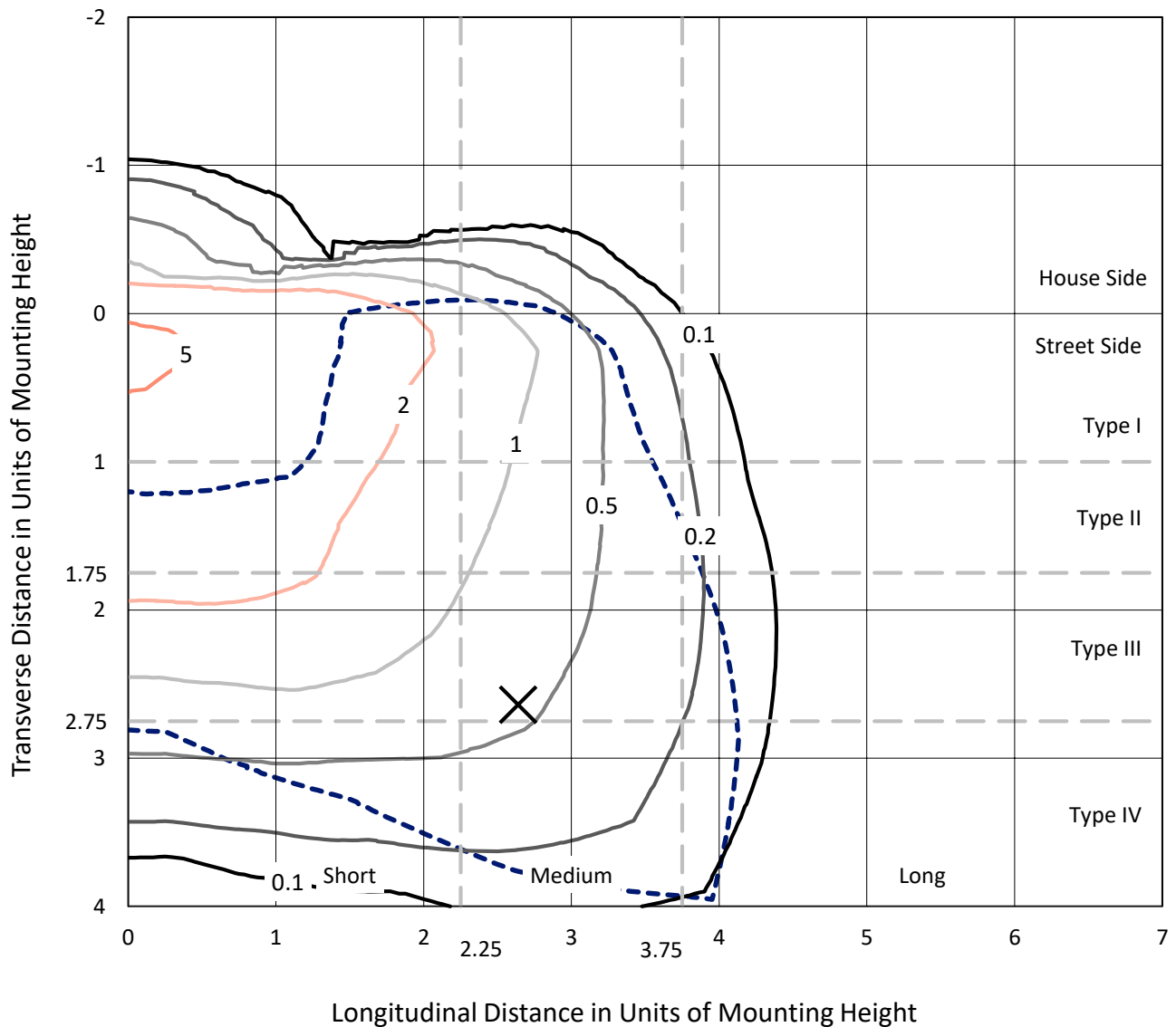


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

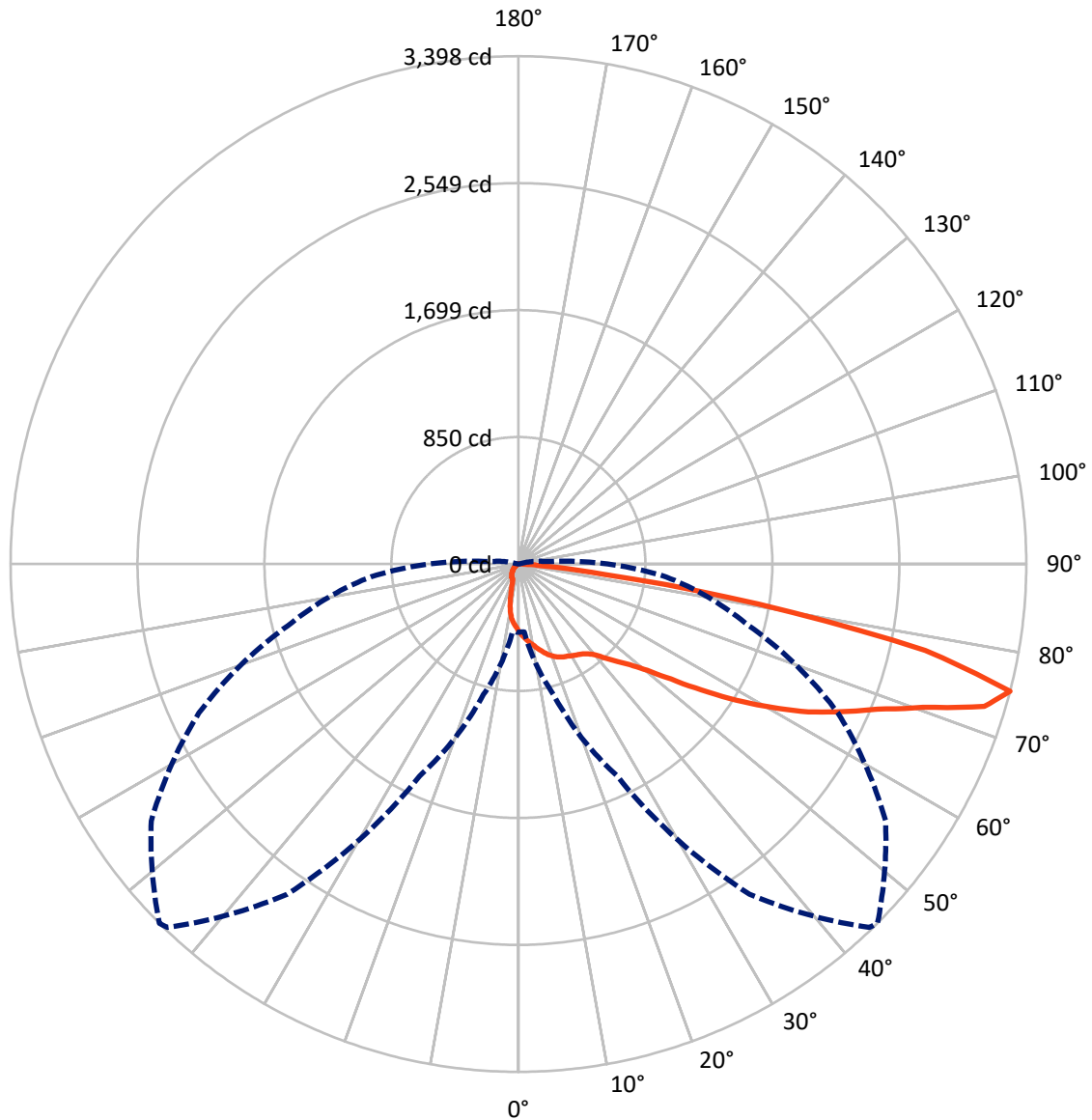


Based on 10 foot mounting height. Maximum calculated value = 6 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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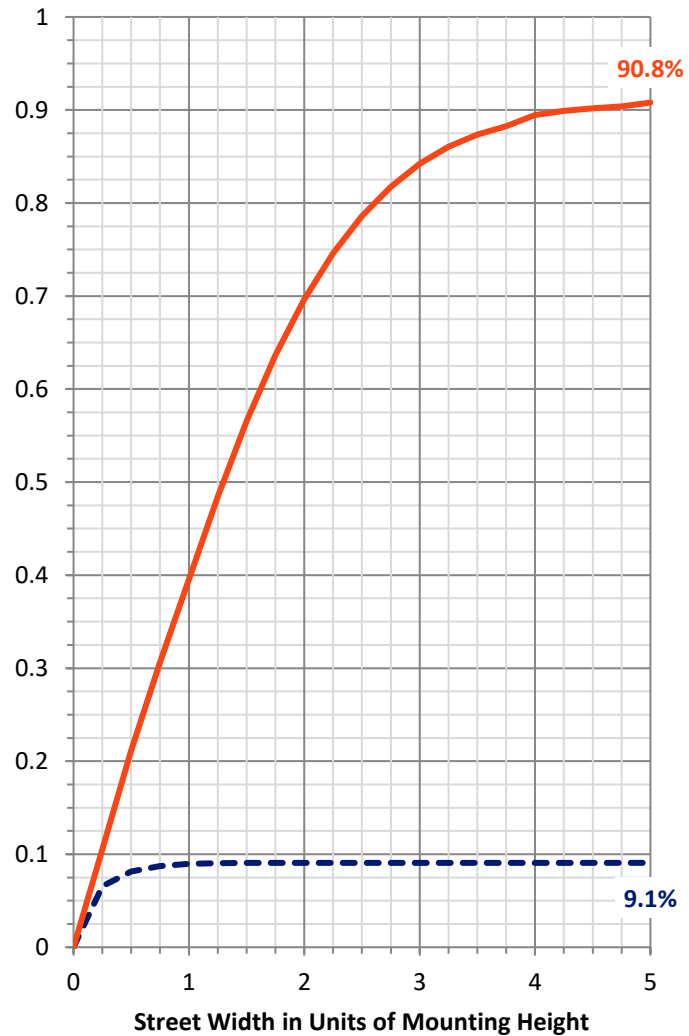
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	386.6	0.0	386.6
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	3839.5	0.0	3839.5
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	4226.1	0.0	4226.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.7	1.0
10°-20°	120.9	2.9
20°-30°	200.1	4.7
30°-40°	289.7	6.9
40°-50°	474.3	11.2
50°-60°	845.1	20.0
60°-70°	1242.4	29.4
70°-80°	937.3	22.2
80°-90°	73.5	1.7
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°	4226.1	100.0
0°-180°	4226.1	100.0



--- HS    — SS

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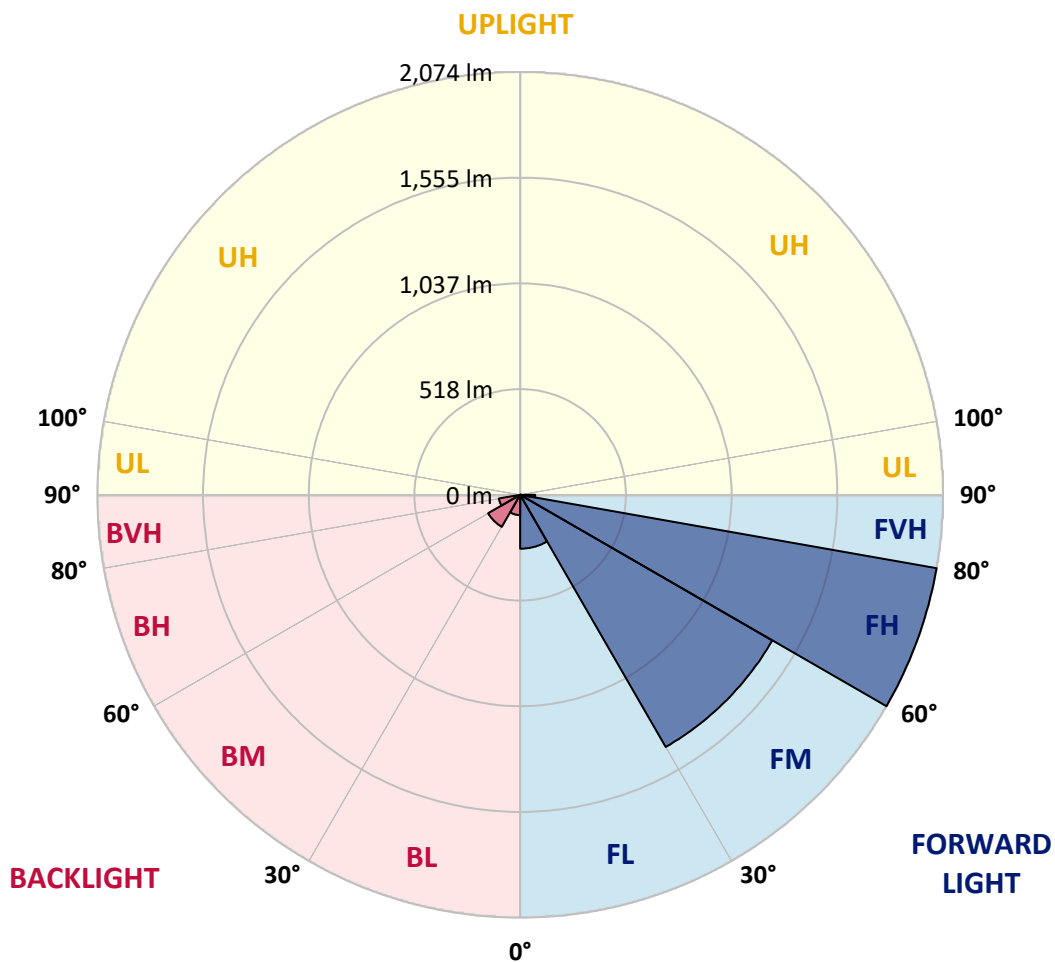
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	264.3	6.3			
FM	(30°-60°)	1428.0	33.8			
FH	(60°-80°)	2073.9	49.1			G2/5000
FVH	(80°-90°)	73.3	1.7			G1/100
BL	(0°-30°)	99.3	2.4	B0/110		
BM	(30°-60°)	181.1	4.3	B0/220		
BH	(60°-80°)	105.9	2.5	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	452	452	452	452	452	452	452	452	452	452	452
2.5°	491	491	490	489	484	479	478	475	466	460	454
5°	532	533	531	526	515	504	503	495	478	466	453
7.5°	571	573	568	559	546	530	529	514	492	475	456
10°	604	604	597	586	572	555	553	536	511	490	465
12.5°	640	639	629	614	598	582	581	560	536	509	478
15°	673	671	658	644	627	610	609	588	563	531	497
17.5°	691	690	678	664	650	637	636	614	587	554	516
20°	694	695	685	673	665	658	658	638	609	574	536
22.5°	695	698	691	675	673	674	676	660	630	597	557
25°	702	706	701	682	680	687	689	682	655	622	581
27.5°	716	720	716	692	689	696	698	702	682	646	606
30°	744	745	736	706	700	709	712	723	707	669	630
32.5°	793	783	756	716	711	721	724	736	730	691	655
35°	893	841	779	730	725	735	739	756	759	722	686
37.5°	892	845	833	757	750	757	762	783	795	763	731
40°	955	935	935	808	785	795	800	821	842	817	784
42.5°	1153	1140	1126	906	834	862	865	878	903	895	856
45°	1374	1362	1308	1072	918	923	930	951	987	1002	956
47.5°	1547	1535	1489	1272	1049	1005	1005	1046	1102	1140	1096
50°	1686	1672	1644	1485	1264	1123	1117	1165	1248	1307	1277
52.5°	1821	1780	1763	1705	1507	1294	1278	1312	1427	1500	1475
55°	1911	1905	1887	1907	1762	1502	1488	1495	1639	1688	1657
57.5°	1995	1994	2034	2127	2040	1740	1718	1707	1844	1832	1859
60°	2099	2081	2174	2307	2295	1972	1947	1925	2001	1967	2101
62.5°	2104	2099	2288	2479	2548	2208	2179	2100	2138	2099	2332
65°	1913	1938	2336	2570	2760	2415	2380	2257	2260	2234	2604
67.5°	1870	1883	2204	2668	2913	2624	2591	2438	2402	2404	2765
70°	1763	1783	2040	2661	3034	2903	2870	2704	2617	2520	2641
72.5°	1347	1381	1719	2333	3001	3268	3259	3041	2703	2314	1998
75°	456	455	903	1567	2696	3380	3398	2999	2358	1596	992
77.5°	98	99	186	635	1791	2714	2783	2262	1521	711	227
80°	48	49	77	168	716	1522	1630	1163	562	142	38
82.5°	24	25	40	89	265	541	578	428	161	80	19
85°	9	9	20	53	121	127	156	124	97	65	5
87.5°	2	2	11	26	54	40	40	38	59	44	2
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°	452	452	452	452	452	452	452	452	452	452	452
2.5°	451	447	440	433	428	422	419	416	415	414	416
5°	446	440	427	416	406	398	392	386	383	381	382
7.5°	446	437	418	401	385	368	351	338	328	322	323
10°	451	439	414	391	361	325	288	260	241	230	230
12.5°	462	446	415	379	328	265	209	175	161	153	154
15°	477	458	420	363	282	197	146	124	124	126	127
17.5°	494	473	424	339	223	141	115	113	116	121	121
20°	511	488	426	301	167	112	109	109	111	116	117
22.5°	532	507	424	254	125	106	105	105	105	111	111
25°	554	529	416	204	106	102	101	100	100	105	106
27.5°	579	552	397	156	100	98	97	95	95	99	99
30°	604	578	368	118	95	94	92	90	88	92	92
32.5°	631	605	330	94	88	88	87	84	82	84	85
35°	667	636	287	82	79	79	79	78	74	76	76
37.5°	715	679	237	76	72	70	70	70	67	68	68
40°	776	729	189	71	67	62	60	61	59	59	58
42.5°	859	783	142	67	63	56	52	51	49	48	48
45°	978	849	102	63	60	49	45	42	37	34	34
47.5°	1132	924	76	59	57	43	38	32	25	23	23
50°	1320	1008	64	53	52	38	30	21	14	12	13
52.5°	1503	1087	57	47	46	33	22	11	6	6	6
55°	1657	1143	52	42	40	26	12	5	3	3	3
57.5°	1796	1175	47	37	32	18	5	2	2	1	1
60°	1923	1194	41	32	25	10	2	1	1	0	0
62.5°	2048	1208	35	26	19	4	1	1	0	0	0
65°	2143	1203	28	21	12	2	1	0	0	0	0
67.5°	2140	1135	21	16	6	1	0	0	0	0	0
70°	1914	956	14	10	2	1	0	0	0	0	0
72.5°	1358	613	9	6	1	0	0	0	0	0	0
75°	598	186	5	3	0	0	0	0	0	0	0
77.5°	117	43	3	2	0	0	0	0	0	0	0
80°	28	5	1	1	0	0	0	0	0	0	0
82.5°	12	2	0	0	0	0	0	0	0	0	0
85°	3	1	0	0	0	0	0	0	0	0	0
87.5°	2	1	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)