

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: P184518

Luminaire Tested: **312EN-LD2-51-UNV-L840-CD1-U**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P184518  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34485)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: 312EN-LD2-51-UNV-L840-CD1-U  
Description: METALUX ENCOUNTER 300X1200 TROFFER  
  
Light Source: EATON LED 4000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

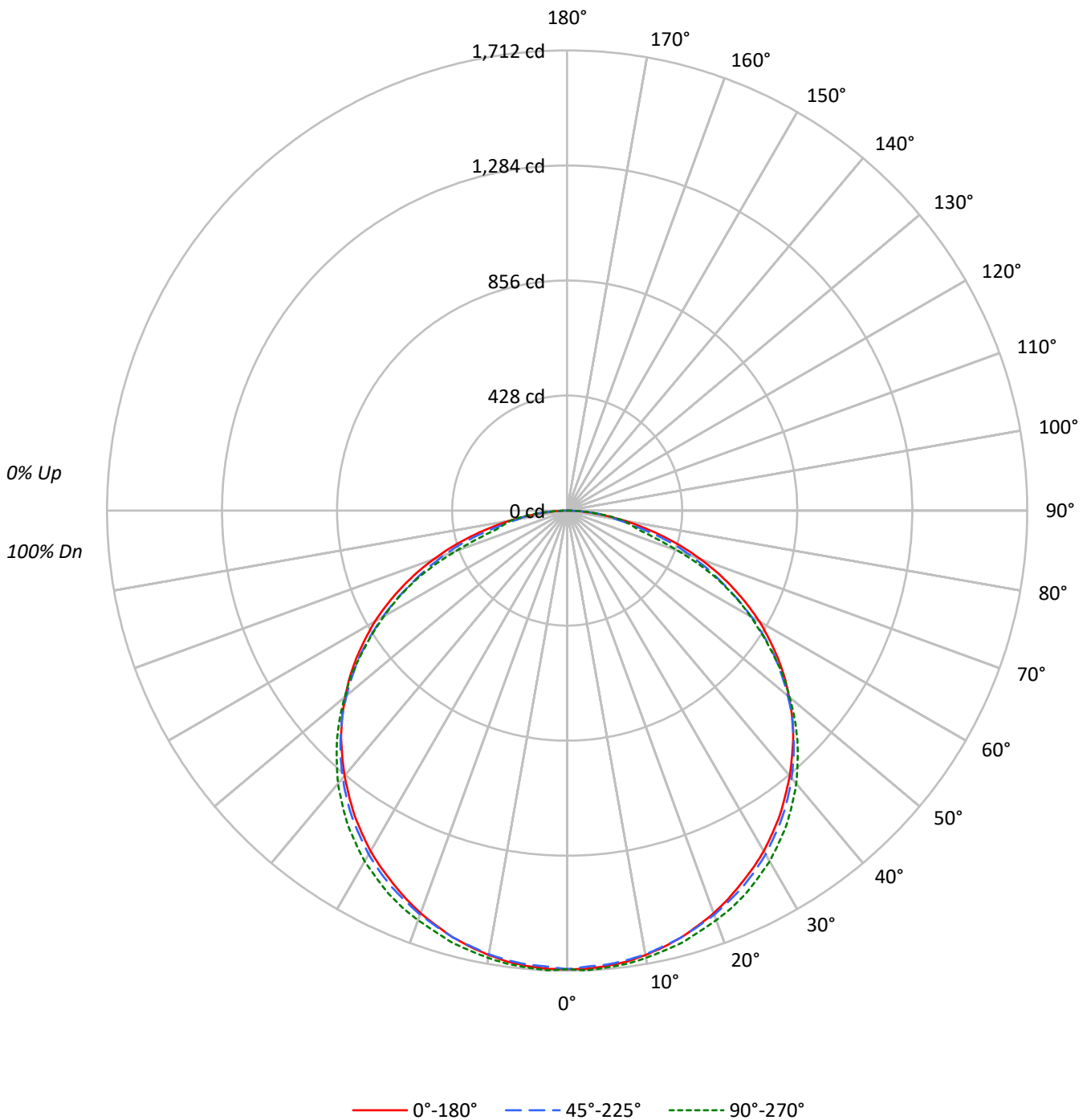
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5074.0 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.41  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.7  
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: 25 FT



TEST NUMBER: P184518  
CATALOG NUMBER: 312EN-LD2-51-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P184518

CATALOG NUMBER: 312EN-LD2-51-UNV-L840-CD1-U

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4592	4592	4592
5°	4594	4580	4609
10°	4588	4580	4618
15°	4578	4578	4632
20°	4565	4581	4643
25°	4547	4587	4668
30°	4546	4588	4682
35°	4536	4581	4680
40°	4524	4563	4659
45°	4527	4537	4610
50°	4510	4487	4522
55°	4490	4413	4400
60°	4444	4268	4238
65°	4336	4057	4022
70°	4152	3851	3463
75°	3839	3411	2843
80°	3347	2881	3264
85°	2532	3038	2955



TEST NUMBER: P184518

CATALOG NUMBER: 312EN-LD2-51-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.7	3.2
10°-20°	465.5	9.2
20°-30°	714.0	14.1
30°-40°	874.5	17.2
40°-50°	921.9	18.2
50°-60°	842.1	16.6
60°-70°	639.8	12.6
70°-80°	349.4	6.9
80°-90°	104.9	2.1
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°-30°	1341.3	26.4
0°-40°	2215.8	43.7
0°-60°	3979.9	78.4
0°-90°	5074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5074.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1701	1701	1695	1704	1706	162
15°	1643	1643	1643	1657	1662	464
25°	1531	1534	1545	1564	1572	707
35°	1381	1381	1395	1414	1425	864
45°	1190	1190	1192	1203	1211	917
55°	957	954	941	932	938	855
65°	681	667	637	632	632	673
75°	369	356	328	282	273	390
85°	82	88	98	96	96	101
90°	0	0	0	0	0	



TEST NUMBER: P184518

CATALOG NUMBER: 312EN-LD2-51-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1706.3	1706.3	1706.3	1706.3	1706.3
2.5°	1706.3	1706.3	1698.1	1706.3	1711.8
5°	1700.8	1700.8	1695.4	1703.6	1706.3
7.5°	1692.6	1692.6	1687.2	1695.4	1700.8
10°	1679.0	1679.0	1676.2	1684.4	1689.9
12.5°	1662.5	1662.5	1659.8	1670.8	1676.2
15°	1643.4	1643.4	1643.4	1657.1	1662.5
17.5°	1618.8	1621.5	1621.5	1635.2	1640.7
20°	1594.2	1596.9	1599.7	1616.1	1621.5
22.5°	1564.1	1564.1	1572.3	1591.5	1599.7
25°	1531.3	1534.0	1545.0	1564.1	1572.3
27.5°	1498.5	1501.2	1512.2	1531.3	1539.5
30°	1462.9	1465.7	1476.6	1495.7	1506.7
32.5°	1421.9	1424.7	1435.6	1457.5	1465.7
35°	1380.9	1380.9	1394.6	1413.7	1424.7
37.5°	1334.4	1337.1	1348.1	1367.2	1375.4
40°	1287.9	1290.7	1298.9	1315.3	1326.2
42.5°	1238.7	1241.4	1246.9	1260.6	1268.8
45°	1189.5	1189.5	1192.2	1203.2	1211.4
47.5°	1134.8	1134.8	1134.8	1140.3	1148.5
50°	1077.4	1077.4	1071.9	1074.6	1080.1
52.5°	1020.0	1017.2	1006.3	1006.3	1014.5
55°	957.1	954.3	940.7	932.4	937.9
57.5°	891.4	886.0	866.8	858.6	861.4
60°	825.8	817.6	793.0	782.1	787.5
62.5°	754.7	746.5	716.4	708.2	713.7
65°	680.9	667.2	637.1	631.7	631.7
67.5°	607.0	590.6	563.3	549.6	541.4
70°	527.7	511.3	489.5	456.7	440.2
72.5°	448.5	434.8	412.9	363.7	347.3
75°	369.2	355.5	328.1	281.6	273.4
77.5°	289.9	281.6	246.1	232.4	240.6
80°	216.0	216.0	185.9	202.3	210.6
82.5°	144.9	139.5	153.1	155.9	155.9
85°	82.0	87.5	98.4	95.7	95.7
87.5°	35.5	41.0	43.8	41.0	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)