

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: P184511

Luminaire Tested: **312EN-LD2-47-UNV-L830-CD1-U**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P184511
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-LD2-47-UNV-L830-CD1-U
Description: METALUX ENCOUNTER 300X1200 TROFFER

Light Source: EATON LED 3000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

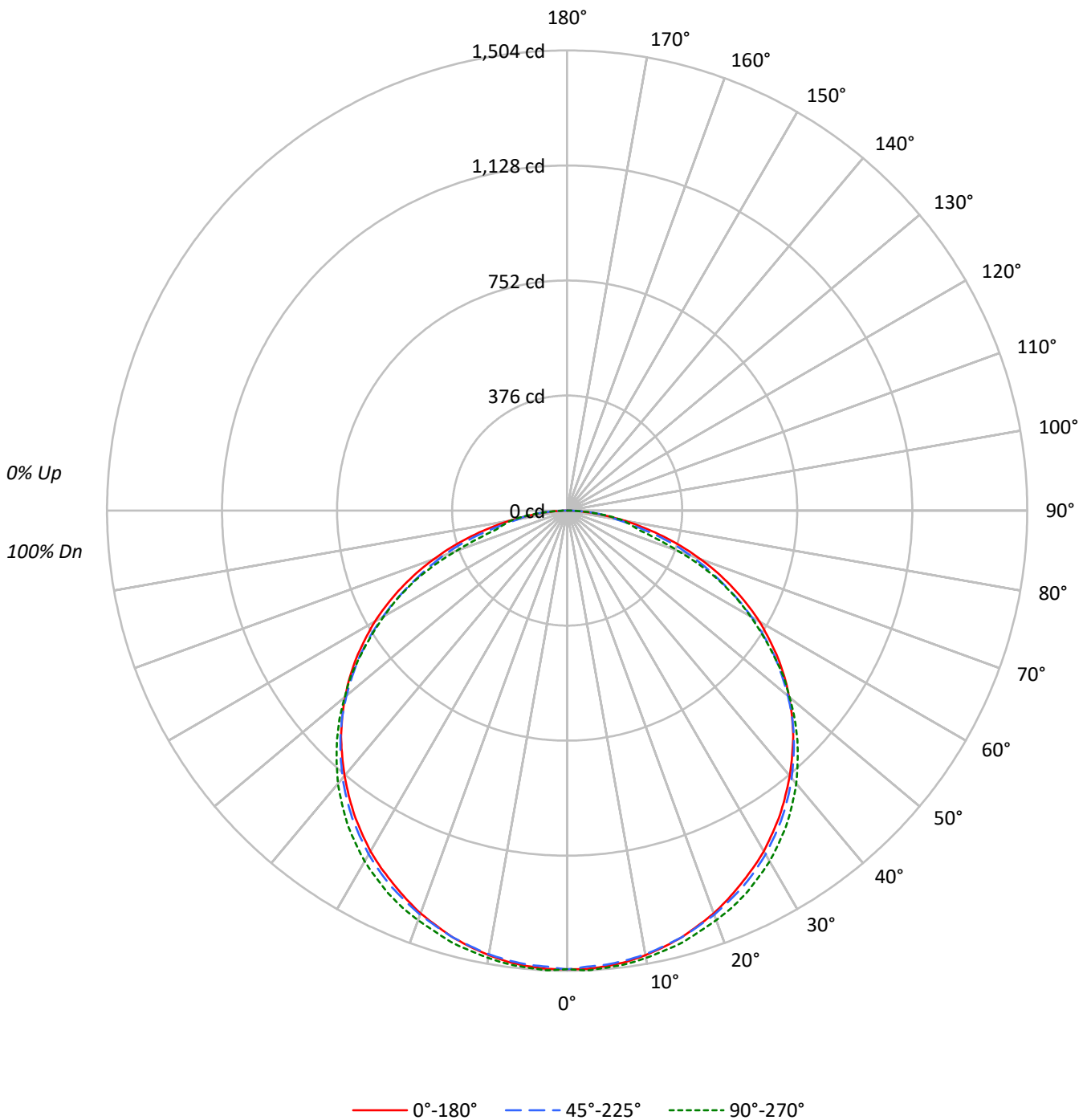
Lumens per Lamp: N/A
Luminaire Lumens: 4458.4 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.41
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.5
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



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Luminous Intensity Polar Plot





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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4035	4035	4035
5°	4037	4024	4050
10°	4031	4025	4057
15°	4023	4023	4070
20°	4011	4025	4080
25°	3995	4031	4102
30°	3994	4032	4114
35°	3986	4026	4112
40°	3975	4009	4093
45°	3978	3987	4051
50°	3963	3943	3973
55°	3946	3878	3866
60°	3905	3750	3724
65°	3810	3564	3534
70°	3648	3384	3043
75°	3373	2997	2498
80°	2941	2532	2867
85°	2226	2671	2597



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.1	3.2
10°-20°	409.1	9.2
20°-30°	627.4	14.1
30°-40°	768.4	17.2
40°-50°	810.1	18.2
50°-60°	740.0	16.6
60°-70°	562.2	12.6
70°-80°	307.0	6.9
80°-90°	92.2	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°	1178.6	26.4
0°-40°	1947.0	43.7
0°-60°	3497.0	78.4
0°-90°	4458.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4458.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1499	1499	1499	1499	1499	
5°	1494	1494	1490	1497	1499	142
15°	1444	1444	1444	1456	1461	407
25°	1346	1348	1358	1374	1382	621
35°	1213	1213	1225	1242	1252	759
45°	1045	1045	1048	1057	1064	805
55°	841	839	826	819	824	751
65°	598	586	560	555	555	591
75°	324	312	288	248	240	343
85°	72	77	86	84	84	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1499.3	1499.3	1499.3	1499.3	1499.3
2.5°	1499.3	1499.3	1492.1	1499.3	1504.1
5°	1494.5	1494.5	1489.7	1496.9	1499.3
7.5°	1487.3	1487.3	1482.5	1489.7	1494.5
10°	1475.3	1475.3	1472.9	1480.1	1484.9
12.5°	1460.9	1460.9	1458.5	1468.1	1472.9
15°	1444.0	1444.0	1444.0	1456.1	1460.9
17.5°	1422.4	1424.8	1424.8	1436.8	1441.6
20°	1400.8	1403.2	1405.6	1420.0	1424.8
22.5°	1374.4	1374.4	1381.6	1398.4	1405.6
25°	1345.5	1347.9	1357.5	1374.4	1381.6
27.5°	1316.7	1319.1	1328.7	1345.5	1352.7
30°	1285.5	1287.9	1297.5	1314.3	1323.9
32.5°	1249.4	1251.8	1261.4	1280.7	1287.9
35°	1213.4	1213.4	1225.4	1242.2	1251.8
37.5°	1172.5	1174.9	1184.5	1201.4	1208.6
40°	1131.7	1134.1	1141.3	1155.7	1165.3
42.5°	1088.4	1090.8	1095.6	1107.7	1114.9
45°	1045.2	1045.2	1047.6	1057.2	1064.4
47.5°	997.1	997.1	997.1	1001.9	1009.1
50°	946.7	946.7	941.9	944.3	949.1
52.5°	896.2	893.8	884.2	884.2	891.4
55°	841.0	838.6	826.5	819.3	824.1
57.5°	783.3	778.5	761.7	754.5	756.9
60°	725.6	718.4	696.8	687.2	692.0
62.5°	663.2	655.9	629.5	622.3	627.1
65°	598.3	586.3	559.8	555.0	555.0
67.5°	533.4	519.0	495.0	482.9	475.7
70°	463.7	449.3	430.1	401.3	386.8
72.5°	394.0	382.0	362.8	319.6	305.1
75°	324.4	312.4	288.3	247.5	240.3
77.5°	254.7	247.5	216.2	204.2	211.4
80°	189.8	189.8	163.4	177.8	185.0
82.5°	127.3	122.5	134.6	137.0	137.0
85°	72.1	76.9	86.5	84.1	84.1
87.5°	31.2	36.0	38.4	36.0	36.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)