

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: P184516

Luminaire Tested: **312EN-LD2-51-UNV-L830-CD1-U**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P184516
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-L830-CD1-U
Description: METALUX ENCOUNTER 300X1200 TROFFER

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

Summary

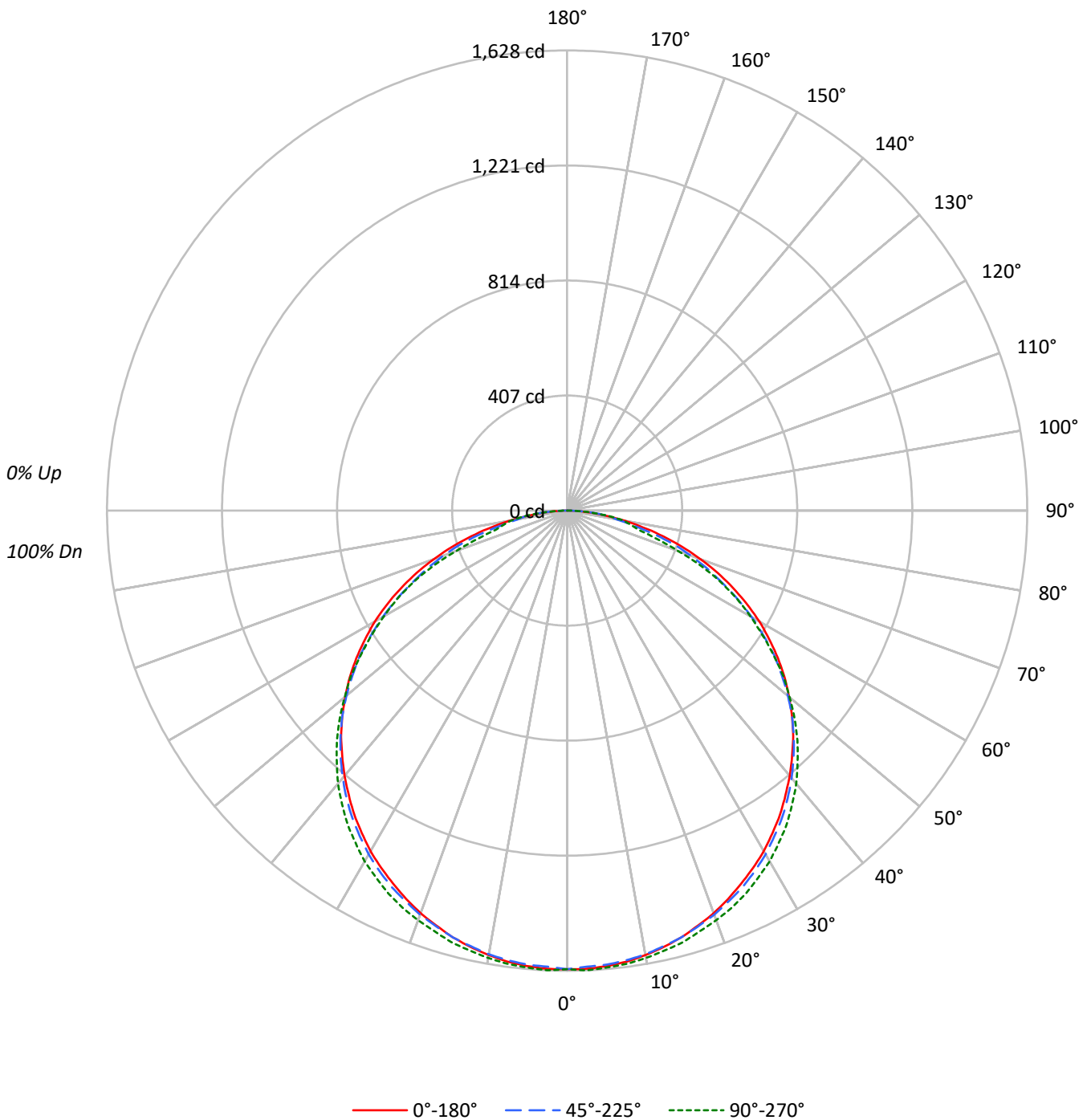
Lumens per Lamp: N/A
Luminaire Lumens: 4825.2 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.41
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44.7
Input Voltage (V): NR
Input Current (A_{in}): 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	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°	4367	4367	4367
5°	4369	4355	4383
10°	4363	4356	4391
15°	4354	4354	4405
20°	4341	4356	4416
25°	4324	4362	4439
30°	4323	4363	4452
35°	4314	4357	4451
40°	4303	4339	4430
45°	4305	4315	4384
50°	4289	4268	4300
55°	4270	4197	4184
60°	4226	4059	4031
65°	4123	3858	3825
70°	3949	3663	3294
75°	3650	3244	2703
80°	3183	2740	3102
85°	2408	2890	2810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.8	3.2
10°-20°	442.7	9.2
20°-30°	679.0	14.1
30°-40°	831.6	17.2
40°-50°	876.8	18.2
50°-60°	800.8	16.6
60°-70°	608.5	12.6
70°-80°	332.2	6.9
80°-90°	99.7	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°	1275.5	26.4
0°-40°	2107.2	43.7
0°-60°	3784.7	78.4
0°-90°	4825.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4825.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1623	1623	1623	1623	1623	
5°	1618	1618	1612	1620	1623	154
15°	1563	1563	1563	1576	1581	441
25°	1456	1459	1469	1487	1495	672
35°	1313	1313	1326	1344	1355	821
45°	1131	1131	1134	1144	1152	872
55°	910	908	894	887	892	813
65°	648	634	606	601	601	640
75°	351	338	312	268	260	371
85°	78	83	94	91	91	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1622.7	1622.7	1622.7	1622.7	1622.7
2.5°	1622.7	1622.7	1614.9	1622.7	1627.9
5°	1617.5	1617.5	1612.3	1620.1	1622.7
7.5°	1609.7	1609.7	1604.5	1612.3	1617.5
10°	1596.7	1596.7	1594.1	1601.9	1607.1
12.5°	1581.1	1581.1	1578.5	1588.9	1594.1
15°	1562.8	1562.8	1562.8	1575.9	1581.1
17.5°	1539.4	1542.0	1542.0	1555.0	1560.2
20°	1516.0	1518.6	1521.2	1536.8	1542.0
22.5°	1487.4	1487.4	1495.2	1513.4	1521.2
25°	1456.2	1458.8	1469.2	1487.4	1495.2
27.5°	1425.0	1427.6	1438.0	1456.2	1464.0
30°	1391.2	1393.8	1404.2	1422.4	1432.8
32.5°	1352.2	1354.8	1365.2	1386.0	1393.8
35°	1313.2	1313.2	1326.2	1344.4	1354.8
37.5°	1269.0	1271.6	1282.0	1300.2	1308.0
40°	1224.8	1227.4	1235.2	1250.8	1261.2
42.5°	1178.0	1180.6	1185.8	1198.8	1206.6
45°	1131.2	1131.2	1133.8	1144.2	1152.0
47.5°	1079.2	1079.2	1079.2	1084.4	1092.2
50°	1024.6	1024.6	1019.4	1022.0	1027.2
52.5°	970.0	967.4	957.0	957.0	964.8
55°	910.1	907.5	894.5	886.7	891.9
57.5°	847.7	842.5	824.3	816.5	819.1
60°	785.3	777.5	754.1	743.7	748.9
62.5°	717.7	709.9	681.3	673.5	678.7
65°	647.5	634.5	605.9	600.7	600.7
67.5°	577.3	561.7	535.7	522.7	514.9
70°	501.9	486.3	465.5	434.3	418.7
72.5°	426.5	413.5	392.7	345.9	330.3
75°	351.1	338.1	312.0	267.8	260.0
77.5°	275.6	267.8	234.0	221.0	228.8
80°	205.4	205.4	176.8	192.4	200.2
82.5°	137.8	132.6	145.6	148.2	148.2
85°	78.0	83.2	93.6	91.0	91.0
87.5°	33.8	39.0	41.6	39.0	39.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)