

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: P184481

Luminaire Tested: **312EN-LD2-18-UNV-L830-CD1-U**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P184481  
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-LD2-18-UNV-L830-CD1-U  
Description: METALUX ENCOUNTER 300X1200 TROFFER  
  
Light Source: EATON LED 3000K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

**Summary**

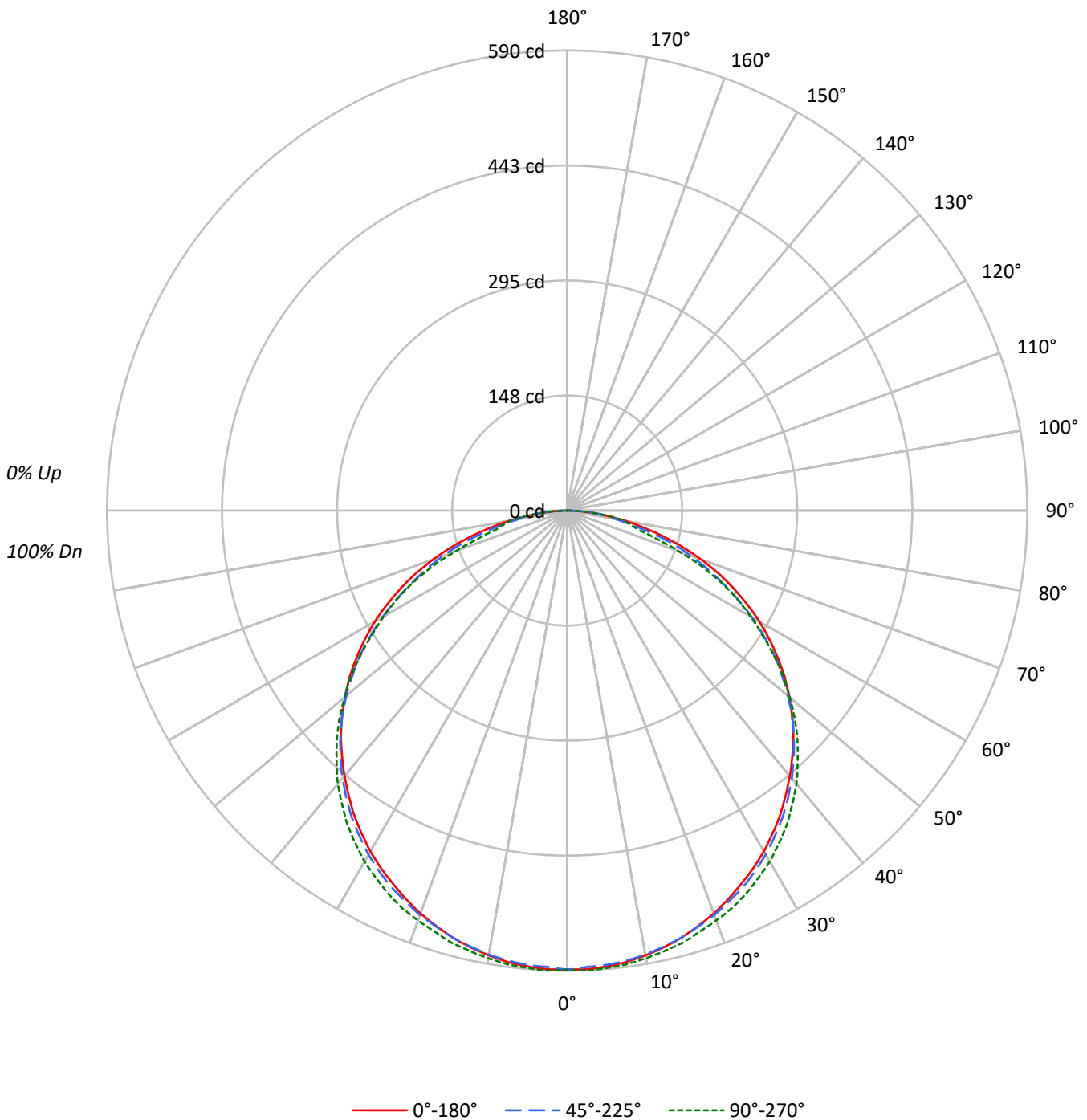
Lumens per Lamp: N/A  
Luminaire Lumens: 1750.1 lumens  
Efficiency: N/A  
Efficacy: 109.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.41  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16  
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: P184481  
CATALOG NUMBER: 312EN-LD2-18-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P184481

CATALOG NUMBER: 312EN-LD2-18-UNV-L830-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°	1584	1584	1584
5°	1585	1580	1590
10°	1582	1580	1593
15°	1579	1579	1598
20°	1575	1580	1602
25°	1568	1582	1610
30°	1568	1583	1615
35°	1565	1580	1614
40°	1560	1574	1607
45°	1561	1565	1590
50°	1556	1548	1560
55°	1549	1522	1518
60°	1533	1472	1462
65°	1496	1400	1387
70°	1432	1328	1195
75°	1324	1177	980
80°	1155	993	1125
85°	874	1050	1019



TEST NUMBER: P184481

CATALOG NUMBER: 312EN-LD2-18-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.8	3.2
10°-20°	160.6	9.2
20°-30°	246.3	14.1
30°-40°	301.6	17.2
40°-50°	318.0	18.2
50°-60°	290.5	16.6
60°-70°	220.7	12.6
70°-80°	120.5	6.9
80°-90°	36.2	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°	462.7	26.4
0°-40°	764.3	43.7
0°-60°	1372.8	78.4
0°-90°	1750.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1750.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	589	589	589	589	589	
5°	587	587	585	588	589	56
15°	567	567	567	572	574	160
25°	528	529	533	540	542	244
35°	476	476	481	488	491	298
45°	410	410	411	415	418	316
55°	330	329	324	322	324	295
65°	235	230	220	218	218	232
75°	127	123	113	97	94	135
85°	28	30	34	33	33	35
90°	0	0	0	0	0	



TEST NUMBER: P184481

CATALOG NUMBER: 312EN-LD2-18-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	588.6	588.6	588.6	588.6	588.6
2.5°	588.6	588.6	585.7	588.6	590.4
5°	586.7	586.7	584.8	587.6	588.6
7.5°	583.8	583.8	582.0	584.8	586.7
10°	579.1	579.1	578.2	581.0	582.9
12.5°	573.5	573.5	572.5	576.3	578.2
15°	566.9	566.9	566.9	571.6	573.5
17.5°	558.4	559.3	559.3	564.0	565.9
20°	549.9	550.8	551.8	557.4	559.3
22.5°	539.5	539.5	542.3	548.9	551.8
25°	528.2	529.1	532.9	539.5	542.3
27.5°	516.9	517.8	521.6	528.2	531.0
30°	504.6	505.6	509.3	515.9	519.7
32.5°	490.5	491.4	495.2	502.7	505.6
35°	476.3	476.3	481.0	487.6	491.4
37.5°	460.3	461.2	465.0	471.6	474.4
40°	444.2	445.2	448.0	453.7	457.5
42.5°	427.3	428.2	430.1	434.8	437.6
45°	410.3	410.3	411.2	415.0	417.8
47.5°	391.4	391.4	391.4	393.3	396.1
50°	371.6	371.6	369.7	370.7	372.6
52.5°	351.8	350.9	347.1	347.1	349.9
55°	330.1	329.2	324.5	321.6	323.5
57.5°	307.5	305.6	299.0	296.2	297.1
60°	284.8	282.0	273.5	269.8	271.6
62.5°	260.3	257.5	247.1	244.3	246.2
65°	234.9	230.1	219.8	217.9	217.9
67.5°	209.4	203.7	194.3	189.6	186.8
70°	182.0	176.4	168.8	157.5	151.9
72.5°	154.7	150.0	142.4	125.4	119.8
75°	127.3	122.6	113.2	97.1	94.3
77.5°	100.0	97.1	84.9	80.2	83.0
80°	74.5	74.5	64.1	69.8	72.6
82.5°	50.0	48.1	52.8	53.8	53.8
85°	28.3	30.2	34.0	33.0	33.0
87.5°	12.3	14.1	15.1	14.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)