

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: P184491

Luminaire Tested: **312EN-LD2-28-UNV-L830-CD1-U**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P184491
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-LD2-28-UNV-L830-CD1-U
Description: METALUX ENCOUNTER 300X1200 TROFFER

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

Summary

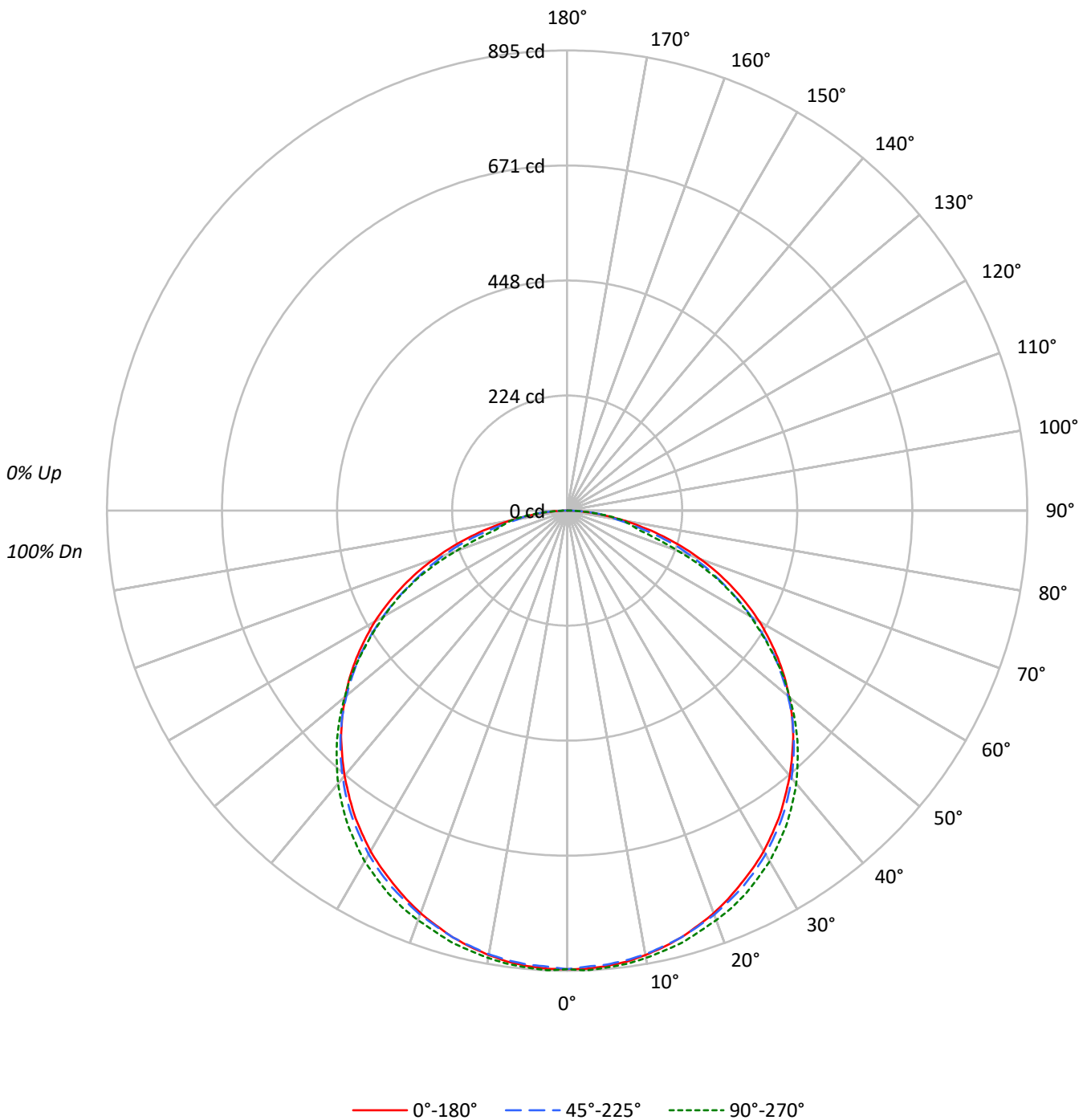
Lumens per Lamp: N/A
Luminaire Lumens: 2652.6 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.41
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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°	2400	2400	2400
5°	2402	2394	2410
10°	2398	2394	2414
15°	2394	2394	2422
20°	2387	2395	2428
25°	2377	2398	2441
30°	2376	2399	2448
35°	2371	2395	2447
40°	2365	2385	2435
45°	2367	2372	2410
50°	2358	2346	2364
55°	2347	2307	2300
60°	2323	2231	2216
65°	2267	2121	2103
70°	2171	2013	1811
75°	2007	1783	1487
80°	1750	1506	1706
85°	1325	1590	1544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.5	3.2
10°-20°	243.4	9.2
20°-30°	373.3	14.1
30°-40°	457.2	17.2
40°-50°	482.0	18.2
50°-60°	440.3	16.6
60°-70°	334.5	12.6
70°-80°	182.6	6.9
80°-90°	54.8	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°	701.2	26.4
0°-40°	1158.4	43.7
0°-60°	2080.6	78.4
0°-90°	2652.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2652.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	889	889	886	891	892	85
15°	859	859	859	866	869	242
25°	800	802	808	818	822	369
35°	722	722	729	739	745	451
45°	622	622	623	629	633	479
55°	500	499	492	488	490	447
65°	356	349	333	330	330	352
75°	193	186	172	147	143	204
85°	43	46	52	50	50	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	892.0	892.0	892.0	892.0	892.0
2.5°	892.0	892.0	887.7	892.0	894.9
5°	889.2	889.2	886.3	890.6	892.0
7.5°	884.9	884.9	882.0	886.3	889.2
10°	877.7	877.7	876.3	880.6	883.5
12.5°	869.2	869.2	867.7	873.4	876.3
15°	859.2	859.2	859.2	866.3	869.2
17.5°	846.3	847.7	847.7	854.9	857.7
20°	833.4	834.9	836.3	844.9	847.7
22.5°	817.7	817.7	822.0	832.0	836.3
25°	800.5	802.0	807.7	817.7	822.0
27.5°	783.4	784.8	790.5	800.5	804.8
30°	764.8	766.2	772.0	782.0	787.7
32.5°	743.4	744.8	750.5	761.9	766.2
35°	721.9	721.9	729.1	739.1	744.8
37.5°	697.6	699.0	704.8	714.8	719.1
40°	673.3	674.7	679.0	687.6	693.3
42.5°	647.6	649.0	651.9	659.0	663.3
45°	621.9	621.9	623.3	629.0	633.3
47.5°	593.3	593.3	593.3	596.1	600.4
50°	563.2	563.2	560.4	561.8	564.7
52.5°	533.2	531.8	526.1	526.1	530.4
55°	500.3	498.9	491.8	487.5	490.3
57.5°	466.0	463.2	453.2	448.9	450.3
60°	431.7	427.4	414.6	408.8	411.7
62.5°	394.6	390.3	374.5	370.3	373.1
65°	356.0	348.8	333.1	330.2	330.2
67.5°	317.4	308.8	294.5	287.3	283.0
70°	275.9	267.3	255.9	238.7	230.2
72.5°	234.4	227.3	215.9	190.1	181.6
75°	193.0	185.8	171.5	147.2	143.0
77.5°	151.5	147.2	128.7	121.5	125.8
80°	112.9	112.9	97.2	105.8	110.1
82.5°	75.8	72.9	80.1	81.5	81.5
85°	42.9	45.7	51.5	50.0	50.0
87.5°	18.6	21.4	22.9	21.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)