

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: P184496

Luminaire Tested: **312EN-LD2-33-UNV-L830-CD1-U**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P184496
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-LD2-33-UNV-L830-CD1-U
Description: METALUX ENCOUNTER 300X1200 TROFFER

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

Summary

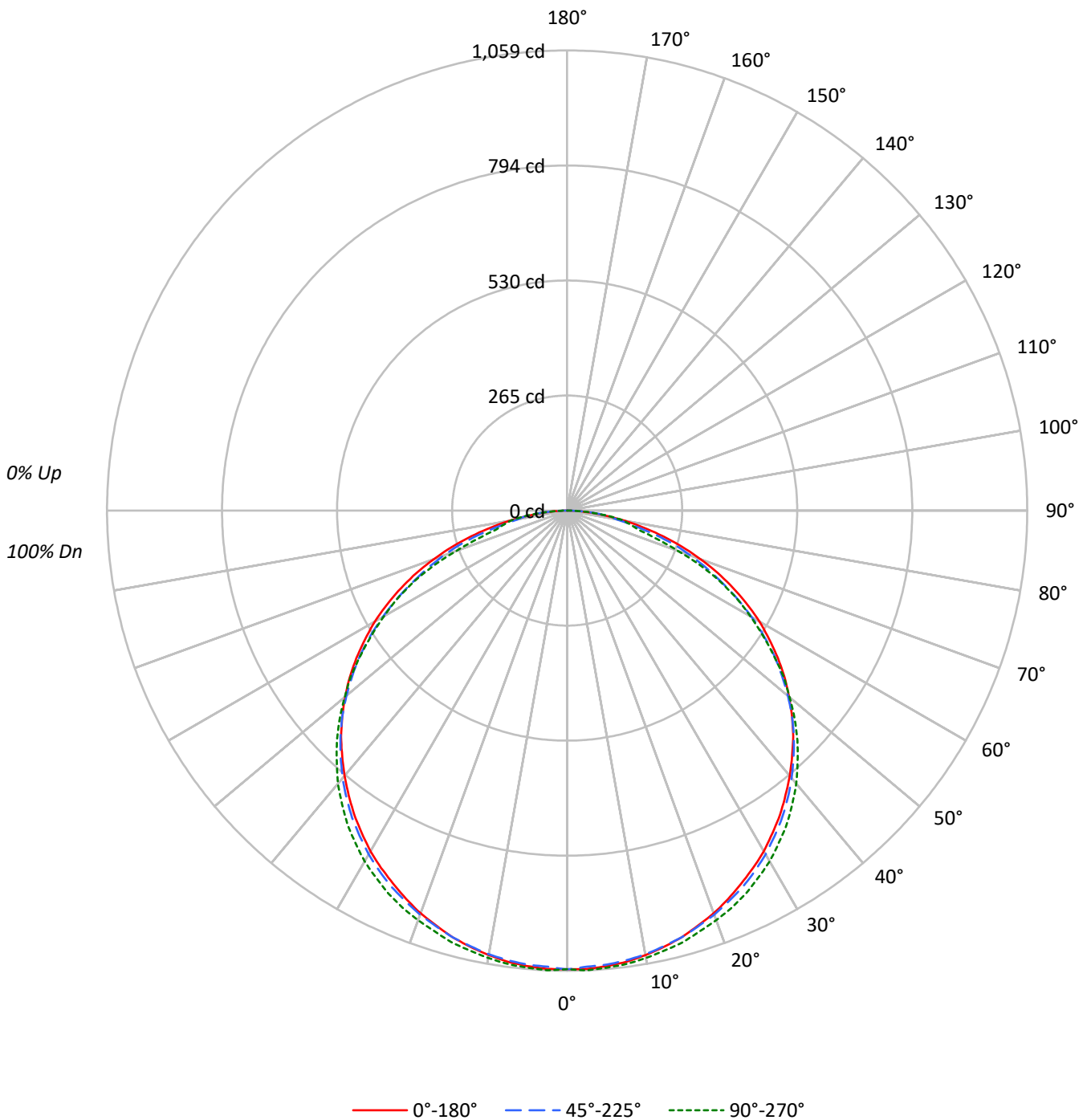
Lumens per Lamp: N/A
Luminaire Lumens: 3139.2 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.41
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.1
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	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°	2841	2841	2841
5°	2843	2833	2852
10°	2838	2834	2857
15°	2833	2833	2866
20°	2824	2834	2873
25°	2813	2838	2888
30°	2812	2839	2897
35°	2806	2834	2895
40°	2799	2823	2882
45°	2801	2807	2852
50°	2791	2776	2797
55°	2778	2730	2723
60°	2750	2640	2622
65°	2683	2510	2488
70°	2569	2382	2143
75°	2375	2111	1759
80°	2070	1782	2019
85°	1568	1880	1828



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.1	3.2
10°-20°	288.0	9.2
20°-30°	441.8	14.1
30°-40°	541.0	17.2
40°-50°	570.4	18.2
50°-60°	521.0	16.6
60°-70°	395.9	12.6
70°-80°	216.2	6.9
80°-90°	64.9	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°	829.8	26.4
0°-40°	1370.9	43.7
0°-60°	2462.3	78.4
0°-90°	3139.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3139.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1052	1052	1049	1054	1056	100
15°	1017	1017	1017	1025	1029	287
25°	947	949	956	968	973	437
35°	854	854	863	875	881	534
45°	736	736	738	744	750	567
55°	592	590	582	577	580	529
65°	421	413	394	391	391	416
75°	228	220	203	174	169	241
85°	51	54	61	59	59	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1055.7	1055.7	1055.7	1055.7	1055.7
2.5°	1055.7	1055.7	1050.6	1055.7	1059.0
5°	1052.3	1052.3	1048.9	1054.0	1055.7
7.5°	1047.2	1047.2	1043.8	1048.9	1052.3
10°	1038.7	1038.7	1037.1	1042.1	1045.5
12.5°	1028.6	1028.6	1026.9	1033.7	1037.1
15°	1016.8	1016.8	1016.8	1025.2	1028.6
17.5°	1001.5	1003.2	1003.2	1011.7	1015.1
20°	986.3	988.0	989.7	999.8	1003.2
22.5°	967.7	967.7	972.8	984.6	989.7
25°	947.4	949.1	955.8	967.7	972.8
27.5°	927.1	928.8	935.5	947.4	952.5
30°	905.1	906.8	913.6	925.4	932.2
32.5°	879.7	881.4	888.2	901.7	906.8
35°	854.3	854.3	862.8	874.6	881.4
37.5°	825.6	827.3	834.0	845.9	851.0
40°	796.8	798.5	803.6	813.7	820.5
42.5°	766.4	768.1	771.4	779.9	785.0
45°	735.9	735.9	737.6	744.4	749.5
47.5°	702.1	702.1	702.1	705.5	710.5
50°	666.6	666.6	663.2	664.9	668.2
52.5°	631.0	629.3	622.6	622.6	627.6
55°	592.1	590.4	582.0	576.9	580.3
57.5°	551.5	548.1	536.3	531.2	532.9
60°	510.9	505.8	490.6	483.8	487.2
62.5°	466.9	461.9	443.2	438.2	441.6
65°	421.3	412.8	394.2	390.8	390.8
67.5°	375.6	365.4	348.5	340.0	335.0
70°	326.5	316.4	302.8	282.5	272.4
72.5°	277.4	269.0	255.5	225.0	214.9
75°	228.4	219.9	203.0	174.3	169.2
77.5°	179.3	174.3	152.3	143.8	148.9
80°	133.6	133.6	115.0	125.2	130.3
82.5°	89.7	86.3	94.7	96.4	96.4
85°	50.8	54.1	60.9	59.2	59.2
87.5°	22.0	25.4	27.1	25.4	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)