

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: METALUX

Report Number: P35058

Luminaire Tested: **12EN-LD2-23-HP-UNV-L835-CD1-U**

Test Date: 09/25/16

**Test Information**

Test Method: LM-79-08  
Report Number: P35058  
Test Lab: INNOVATION CENTER-P3  
Test Date: 09/25/16  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 12EN-LD2-23-HP-UNV-L835-CD1-U  
Description: ENCOUNTER 1X2 LED TROFFER  
Light Source: (196) EATON 3500K LEDS  
EL232N098E835  
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER @ 440 mA  
OT50W/PRG1400C/UNV/DIM/L

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2341.8 lumens  
Efficiency: N/A  
Efficacy: 117.1 lumens/watt  
Spacing Criteria (0/90/45): 1.42 / 1.37 / 1.41  
Luminous Opening: Rectangular (W 0.83' x L: 1.83' x H: 0')  
CIE Type: Direct

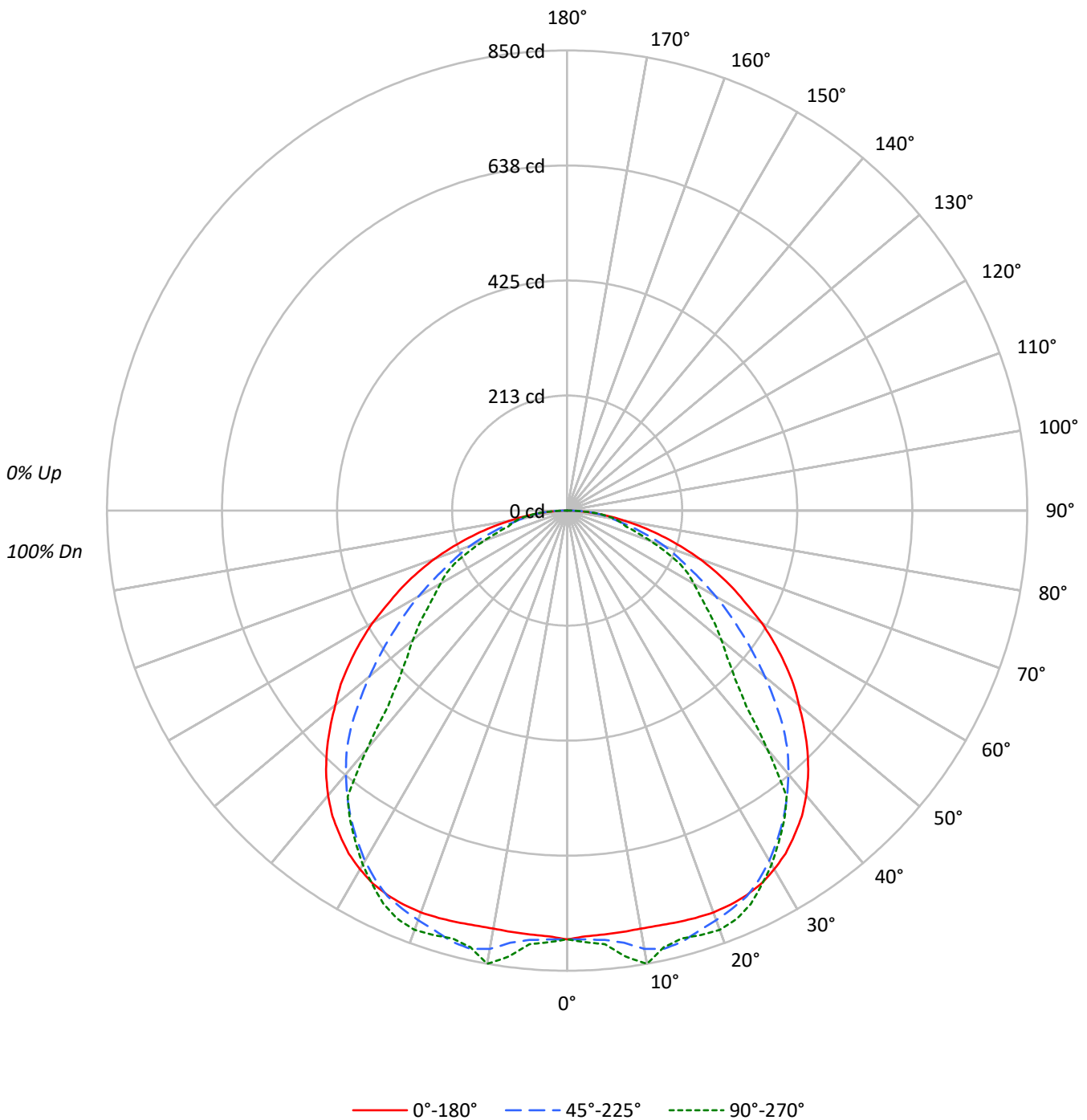
Input Watts (W): 20  
Input Voltage (V): 120.1  
Input Current (A<sub>in</sub>): 0.169  
Voltage Rise (V): NR  
Power Factor: 0.9939  
Total Harmonic Distortion (THDi): 9.06%  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 5 HR  
Ambient Temperature (°C): 24.9  
Test Distance: 25 FT



TEST NUMBER: P35058

CATALOG NUMBER: 12EN-LD2-23-HP-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P35058

CATALOG NUMBER: 12EN-LD2-23-HP-UNV-L835-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	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	46	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5580	5580	5580
5°	5559	5630	5686
10°	5609	5881	6081
15°	5740	6010	5967
20°	5923	6036	6178
25°	6095	6110	6235
30°	6224	6077	6142
35°	6296	5986	6012
40°	6318	5849	5288
45°	6257	5620	4364
50°	6127	5228	4077
55°	6019	4827	3869
60°	5848	4467	3805
65°	5618	4101	3784
70°	5356	3935	3378
75°	4927	3566	3049
80°	4341	3327	3652
85°	3799	3961	4123



TEST NUMBER: P35058

CATALOG NUMBER: 12EN-LD2-23-HP-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.8	3.3
10°-20°	230.1	9.8
20°-30°	362.8	15.5
30°-40°	439.2	18.8
40°-50°	422.1	18.0
50°-60°	352.8	15.1
60°-70°	259.3	11.1
70°-80°	147.5	6.3
80°-90°	51.1	2.2
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°	669.7	28.6
0°-40°	1109.0	47.4
0°-60°	1883.9	80.4
0°-90°	2341.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2341.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	786	790	796	802	804	75
15°	787	803	824	818	818	223
25°	784	780	786	798	802	361
35°	732	709	696	700	699	458
45°	628	589	564	496	438	483
55°	490	446	393	334	315	438
65°	337	297	246	226	227	333
75°	181	155	131	115	112	192
85°	47	43	49	49	51	54
90°	0	0	0	0	0	



TEST NUMBER: P35058

CATALOG NUMBER: 12EN-LD2-23-HP-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	792	792	792	792	792
2.5°	787	789	793	797	798
5°	786	790	796	802	804
7.5°	785	791	805	822	831
10°	784	795	822	847	850
12.5°	785	801	829	831	826
15°	787	803	824	818	818
17.5°	789	801	813	816	822
20°	790	796	805	815	824
22.5°	788	790	796	811	817
25°	784	780	786	798	802
27.5°	777	769	768	777	779
30°	765	752	747	753	755
32.5°	751	734	722	728	727
35°	732	709	696	700	699
37.5°	712	683	667	667	666
40°	687	654	636	614	575
42.5°	659	623	603	554	489
45°	628	589	564	496	438
47.5°	594	555	520	449	401
50°	559	518	477	405	372
52.5°	527	484	434	367	344
55°	490	446	393	334	315
57.5°	453	409	354	300	290
60°	415	371	317	271	270
62.5°	373	334	280	249	252
65°	337	297	246	226	227
67.5°	298	258	218	196	195
70°	260	224	191	167	164
72.5°	220	187	160	138	135
75°	181	155	131	115	112
77.5°	143	125	103	98	102
80°	107	97	82	86	90
82.5°	76	67	67	71	73
85°	47	43	49	49	51
87.5°	21	22	26	27	28
90°	0	0	0	0	0

(END OF REPORT)