

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: P35050

Luminaire Tested: **24EN-LD2-54HP-UNV-L835-CD1-U**

Test Date: 08/04/16

**Test Information**

Test Method: LM-79-08  
Report Number: P35050  
Test Lab: INNOVATION CENTER-P3  
Test Date: 08/04/16  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24EN-LD2-54HP-UNV-L835-CD1-U  
Description: ENCOUNTER 2X4 LED TROFFER  
Light Source: (392) EATON 3500K LEDS  
EL232N098E835  
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER @ 900 mA  
OT50W/PRG1400C/UNV/DIM/L

**Summary**

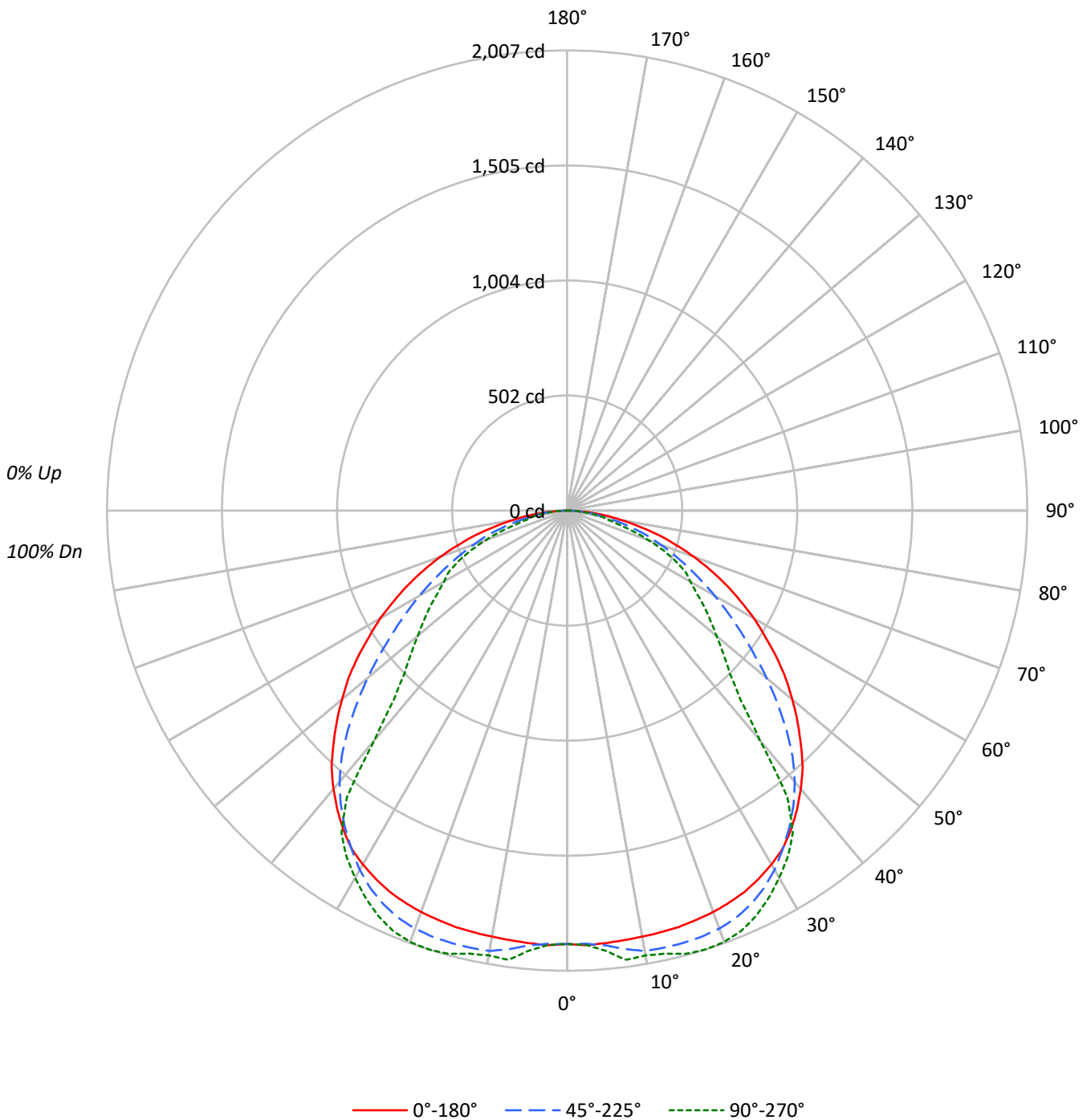
Lumens per Lamp: N/A  
Luminaire Lumens: 5491.9 lumens  
Efficiency: N/A  
Efficacy: 135.9 lumens/watt  
Spacing Criteria (0/90/45): 1.39 / 1.4 / 1.41  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 40.4  
Input Voltage (V): 120.0  
Input Current (A<sub>in</sub>): 0.337  
Voltage Rise (V): NR  
Power Factor: 0.9996  
Total Harmonic Distortion (THDi): 7.76%  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 5 HR  
Ambient Temperature (°C): 24.7  
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	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	84	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

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

	0°	45°	90°
0°	2895	2895	2895
5°	2912	2926	2963
10°	2935	3033	3064
15°	2981	3095	3173
20°	3037	3162	3263
25°	3099	3202	3295
30°	3152	3199	3270
35°	3180	3158	3209
40°	3169	3087	2611
45°	3121	2928	2173
50°	3055	2707	2025
55°	2975	2475	1947
60°	2886	2279	1902
65°	2769	2095	1895
70°	2629	1948	1697
75°	2456	1758	1355
80°	2152	1420	1358
85°	1968	1353	1265



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.2	3.3
10°-20°	550.1	10.0
20°-30°	871.0	15.9
30°-40°	1052.1	19.2
40°-50°	991.4	18.1
50°-60°	821.3	15.0
60°-70°	600.8	10.9
70°-80°	327.9	6.0
80°-90°	94.2	1.7
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°	1604.3	29.2
0°-40°	2656.4	48.4
0°-60°	4469.0	81.4
0°-90°	5491.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5491.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1890	1890	1890	1890	1890	
5°	1894	1891	1903	1913	1927	181
15°	1880	1904	1952	1978	2001	532
25°	1834	1853	1895	1932	1950	846
35°	1701	1676	1689	1710	1716	1062
45°	1441	1392	1352	1157	1003	1112
55°	1114	1052	927	765	729	996
65°	764	695	578	514	523	755
75°	415	360	297	243	229	436
85°	112	87	77	71	72	122
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1890	1890	1890	1890	1890
2.5°	1897	1890	1891	1889	1896
5°	1894	1891	1903	1913	1927
7.5°	1890	1895	1929	1961	1976
10°	1887	1901	1950	1966	1970
12.5°	1884	1905	1953	1964	1979
15°	1880	1904	1952	1978	2001
17.5°	1872	1900	1949	1985	2007
20°	1863	1892	1940	1979	2002
22.5°	1850	1876	1923	1962	1984
25°	1834	1853	1895	1932	1950
27.5°	1810	1823	1857	1888	1904
30°	1782	1783	1809	1836	1849
32.5°	1749	1736	1750	1779	1791
35°	1701	1676	1689	1710	1716
37.5°	1646	1614	1621	1610	1578
40°	1585	1545	1544	1452	1306
42.5°	1521	1471	1455	1292	1119
45°	1441	1392	1352	1157	1003
47.5°	1363	1311	1243	1038	923
50°	1282	1226	1136	933	850
52.5°	1202	1137	1026	846	788
55°	1114	1052	927	765	729
57.5°	1024	960	833	695	669
60°	942	870	744	631	621
62.5°	850	781	658	572	583
65°	764	695	578	514	523
67.5°	674	608	504	455	455
70°	587	522	435	383	379
72.5°	498	435	369	314	303
75°	415	360	297	243	229
77.5°	324	291	230	182	179
80°	244	228	161	151	154
82.5°	175	157	122	113	111
85°	112	87	77	71	72
87.5°	41	39	37	37	39
90°	0	0	0	0	0

(END OF REPORT)