

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: P476192

Luminaire Tested: **14GR-LD5-40-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476192
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-40-F1-UNV-L840-CD1-U
Description: GR 1'X4' LED TROFFER w/ F1 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4048.1 lumens
Efficiency: N/A
Efficacy: 129.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.2
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

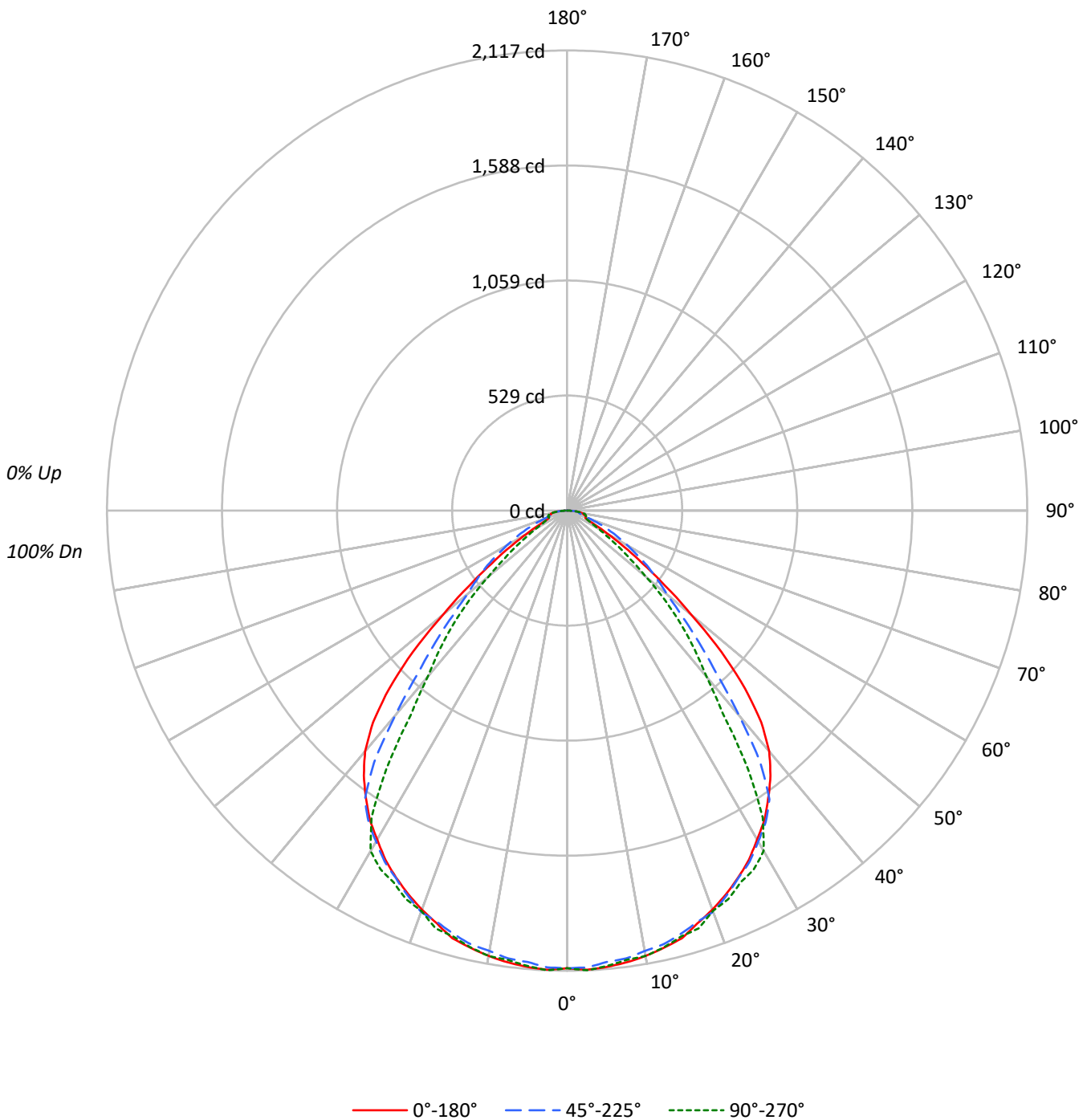
Input Watts (W): 31.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	82	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54					54			
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	49					49			
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	50	43	39	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5665	5665	5665
5°	5693	5632	5681
10°	5685	5623	5685
15°	5676	5619	5651
20°	5594	5627	5614
25°	5531	5538	5605
30°	5429	5464	5619
35°	5300	5330	4765
40°	5079	4323	3503
45°	4407	3260	2829
50°	3131	2505	1983
55°	1988	2148	1329
60°	1171	1720	878
65°	693	1342	678
70°	713	910	696
75°	872	707	919
80°	1124	879	1229
85°	1189	1189	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.7	4.9
10°-20°	571.7	14.1
20°-30°	864.5	21.4
30°-40°	962.7	23.8
40°-50°	704.6	17.4
50°-60°	388.4	9.6
60°-70°	198.6	4.9
70°-80°	113.0	2.8
80°-90°	45.0	1.1
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°	1635.8	40.4
0°-40°	2598.5	64.2
0°-60°	3691.6	91.2
0°-90°	4048.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4048.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2105	2105	2105	2105	2105	
5°	2108	2108	2085	2098	2103	200
15°	2037	2015	2017	2042	2028	573
25°	1863	1858	1865	1897	1888	858
35°	1614	1616	1623	1512	1450	1007
45°	1158	1067	857	780	743	871
55°	424	499	458	392	283	396
65°	109	258	211	202	106	125
75°	84	145	68	129	88	88
85°	38	48	38	52	38	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2105.3	2105.3	2105.3	2105.3	2105.3
2.5°	2114.4	2114.4	2103.1	2116.6	2116.6
5°	2107.6	2107.6	2084.9	2098.5	2103.1
7.5°	2096.3	2096.3	2078.1	2089.5	2084.9
10°	2080.4	2069.1	2057.7	2089.5	2080.4
12.5°	2060.0	2037.3	2044.1	2041.9	2057.7
15°	2037.3	2014.7	2016.9	2041.9	2028.3
17.5°	1992.0	1994.3	1985.2	2003.3	2014.7
20°	1953.5	1960.3	1964.8	1976.1	1960.3
22.5°	1910.4	1912.7	1917.2	1933.1	1935.4
25°	1862.8	1858.3	1865.1	1896.8	1887.8
27.5°	1810.7	1808.4	1819.8	1847.0	1860.6
30°	1747.3	1756.3	1758.6	1808.4	1808.4
32.5°	1688.3	1688.3	1699.7	1724.6	1674.7
35°	1613.5	1615.8	1622.6	1511.6	1450.4
37.5°	1536.5	1529.7	1459.4	1257.8	1176.2
40°	1445.8	1430.0	1230.6	1049.3	997.1
42.5°	1321.2	1273.6	1015.3	906.5	868.0
45°	1158.0	1067.4	856.6	779.6	743.3
47.5°	963.1	879.3	711.6	659.5	609.6
50°	747.9	729.7	598.3	553.0	473.6
52.5°	568.8	605.1	525.8	466.8	364.9
55°	423.8	498.6	457.8	392.1	283.3
57.5°	310.5	414.7	385.3	333.1	213.0
60°	217.6	351.3	319.5	281.0	163.2
62.5°	154.1	303.7	262.9	240.2	124.6
65°	108.8	258.3	210.8	201.7	106.5
67.5°	90.6	217.6	160.9	179.0	90.6
70°	90.6	181.3	115.6	158.6	88.4
72.5°	90.6	158.6	86.1	145.0	92.9
75°	83.9	145.0	68.0	129.2	88.4
77.5°	77.1	122.4	58.9	111.0	86.1
80°	72.5	88.4	56.7	90.6	79.3
82.5°	58.9	63.5	52.1	70.3	61.2
85°	38.5	47.6	38.5	52.1	38.5
87.5°	18.1	24.9	18.1	22.7	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)