

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: P476249

Luminaire Tested: **14GR-LD5-60-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476249
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-60-A19/156-UNV-L830-CD1-U
Description: GR 1'X4' LED TROFFER w/ A19/156 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5635.5 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.2
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

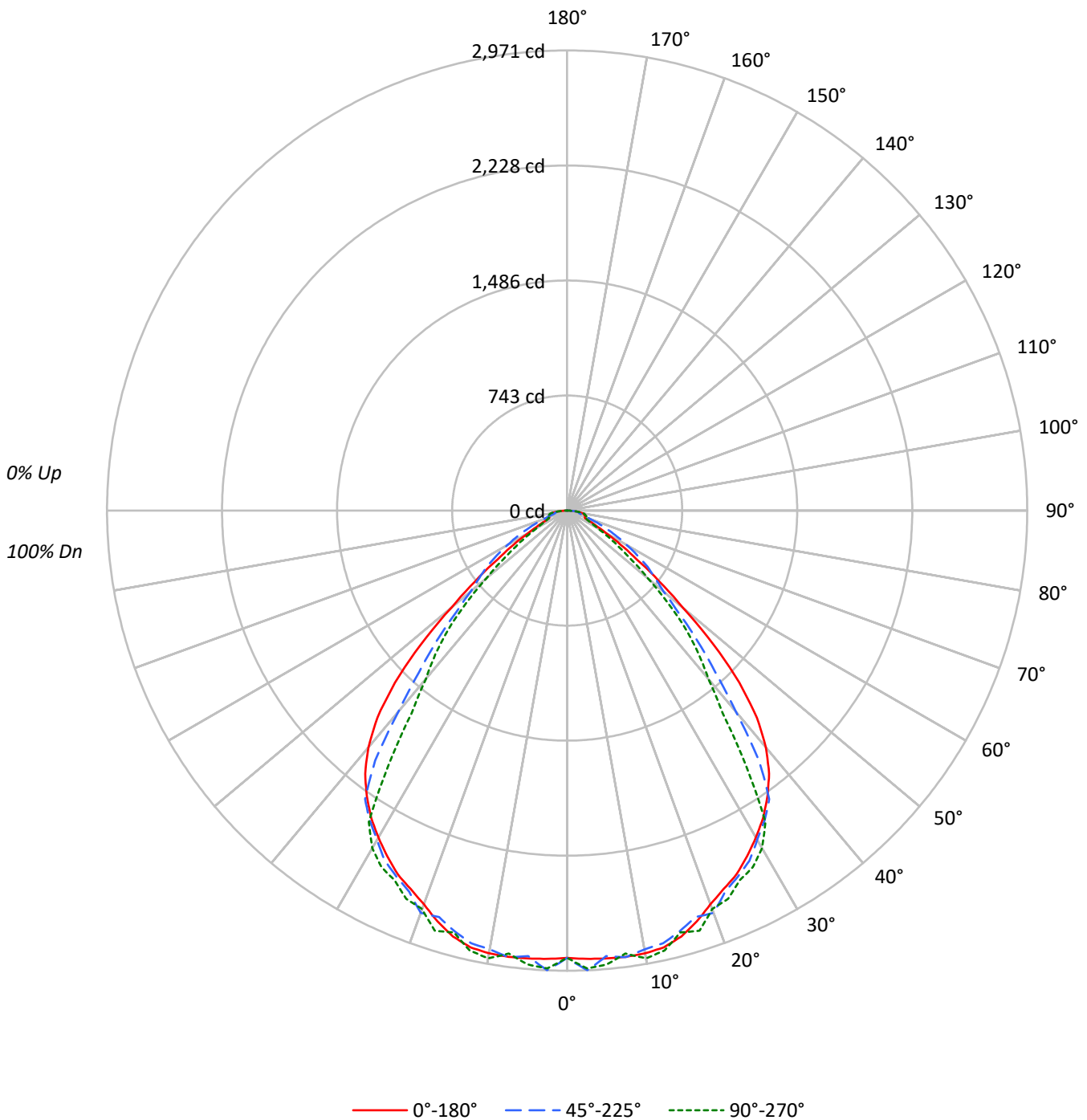
Input Watts (W): 52.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	43	39	49	43	38	48	43	38	48	42	38	36
10	60	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7772	7772	7772
5°	7841	7801	7945
10°	7932	7859	8020
15°	7931	7832	7857
20°	7747	7915	7839
25°	7690	7743	7822
30°	7571	7626	7819
35°	7404	7472	6628
40°	7015	5948	4984
45°	5984	4536	4131
50°	4088	3396	2853
55°	2574	2975	1896
60°	1556	2382	1222
65°	977	1841	939
70°	975	1230	998
75°	1227	981	1288
80°	1599	1189	1691
85°	1547	1639	1639



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.6	4.9
10°-20°	798.6	14.2
20°-30°	1205.3	21.4
30°-40°	1344.4	23.9
40°-50°	977.6	17.3
50°-60°	536.1	9.5
60°-70°	272.6	4.8
70°-80°	160.2	2.8
80°-90°	61.9	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°	2282.6	40.5
0°-40°	3626.9	64.4
0°-60°	5140.7	91.2
0°-90°	5635.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5635.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2888	2888	2888	2888	2888	
5°	2903	2965	2888	2941	2941	277
15°	2847	2835	2811	2870	2820	799
25°	2590	2590	2608	2658	2634	1191
35°	2254	2251	2274	2121	2018	1403
45°	1572	1451	1192	1106	1086	1182
55°	549	678	634	566	404	518
65°	153	327	289	298	148	171
75°	118	209	94	189	124	123
85°	50	65	53	68	53	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2888.0	2888.0	2888.0	2888.0	2888.0
2.5°	2896.8	2955.8	2970.6	2970.6	2958.8
5°	2902.7	2964.7	2888.0	2941.1	2941.1
7.5°	2905.7	2914.5	2908.6	2920.4	2885.0
10°	2902.7	2882.1	2876.2	2949.9	2935.2
12.5°	2888.0	2808.3	2861.4	2837.8	2908.6
15°	2846.7	2834.9	2811.3	2870.3	2820.1
17.5°	2781.8	2787.7	2752.3	2781.8	2843.7
20°	2705.1	2731.6	2764.1	2772.9	2737.5
22.5°	2643.1	2652.0	2663.8	2693.3	2713.9
25°	2590.0	2590.0	2607.7	2657.9	2634.3
27.5°	2516.3	2522.2	2548.7	2563.5	2595.9
30°	2436.6	2442.5	2454.3	2522.2	2516.3
32.5°	2354.0	2359.9	2371.7	2416.0	2383.5
35°	2253.7	2250.8	2274.4	2121.0	2017.7
37.5°	2141.6	2138.7	2035.4	1746.4	1649.0
40°	1997.1	1985.3	1693.3	1466.1	1418.9
42.5°	1814.2	1764.1	1416.0	1283.2	1259.6
45°	1572.3	1451.4	1191.8	1106.2	1085.6
47.5°	1286.2	1194.7	970.5	932.2	882.0
50°	976.4	982.3	811.2	784.7	681.4
52.5°	746.3	817.1	713.9	663.7	528.0
55°	548.7	678.5	634.2	566.4	404.1
57.5°	407.1	563.4	536.9	486.7	309.7
60°	289.1	469.0	442.5	418.9	227.1
62.5°	209.4	392.3	362.8	354.0	174.0
65°	153.4	327.4	289.1	297.9	147.5
67.5°	123.9	274.3	218.3	259.6	126.8
70°	123.9	244.8	156.3	230.1	126.8
72.5°	123.9	230.1	123.9	209.4	132.7
75°	118.0	209.4	94.4	188.8	123.9
77.5°	109.1	171.1	79.6	162.2	118.0
80°	103.2	126.8	76.7	126.8	109.1
82.5°	79.6	88.5	70.8	94.4	85.5
85°	50.1	64.9	53.1	67.8	53.1
87.5°	23.6	35.4	23.6	35.4	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)