

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: P475648

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475648
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-72-A19/156-UNV-L830-CD1-U
Description: GR 2'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: 6522.4 lumens
Efficiency: N/A
Efficacy: 133.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.28
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

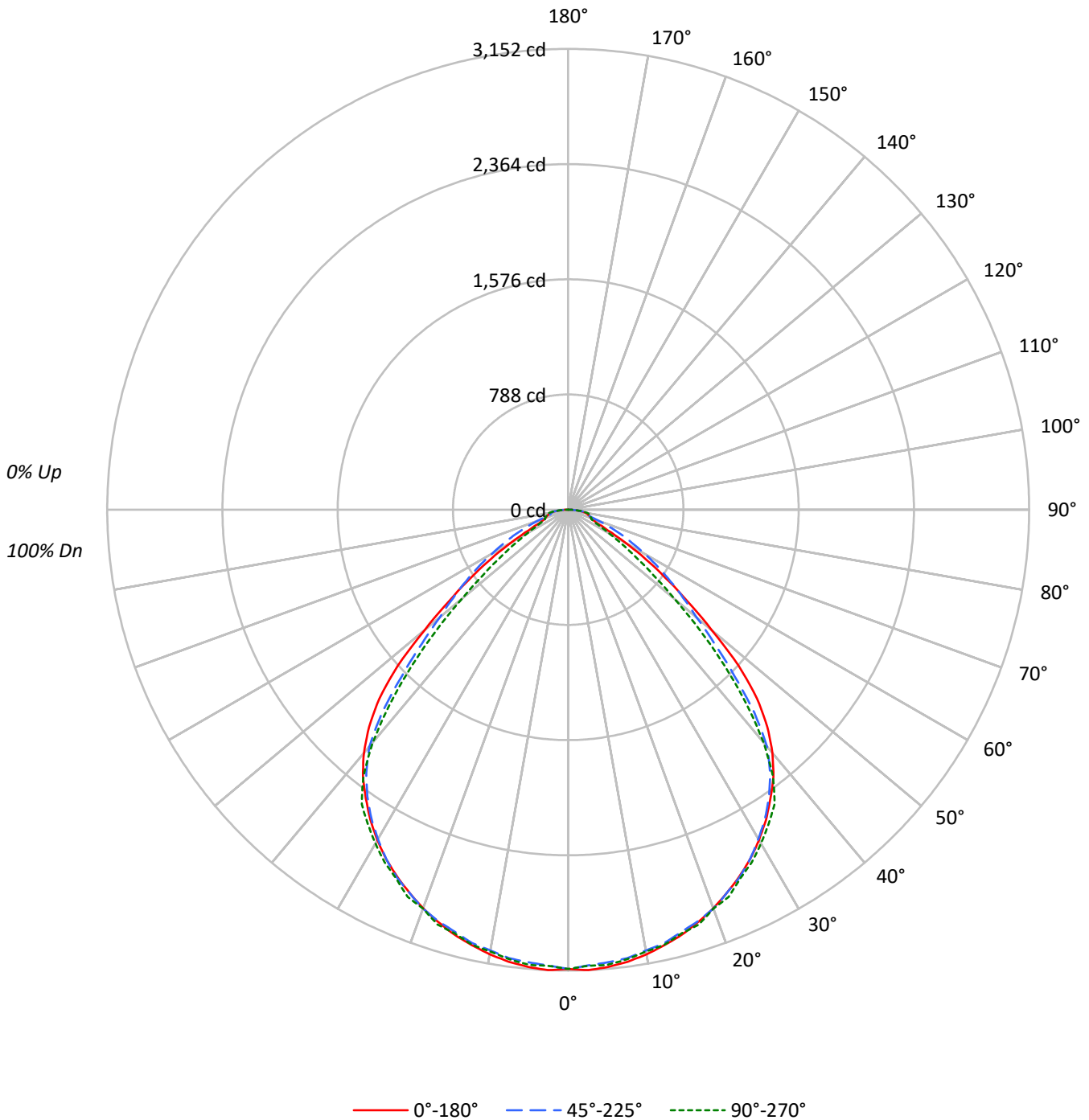
Input Watts (W): 48.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	40	65	53	46	40	52	45	40	50	44	40	49	44	40	38
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4226	4226	4226
5°	4239	4198	4220
10°	4219	4182	4192
15°	4191	4164	4178
20°	4155	4158	4156
25°	4111	4118	4131
30°	4053	4041	4095
35°	3961	3932	4041
40°	3817	3717	3651
45°	3475	3058	2885
50°	2681	2398	1982
55°	1905	2000	1312
60°	1206	1615	856
65°	700	1271	626
70°	648	875	664
75°	745	666	791
80°	931	921	1044
85°	1014	1076	1118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.0	4.5
10°-20°	846.6	13.0
20°-30°	1277.4	19.6
30°-40°	1499.4	23.0
40°-50°	1262.3	19.4
50°-60°	717.0	11.0
60°-70°	357.9	5.5
70°-80°	187.6	2.9
80°-90°	78.2	1.2
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°	2420.0	37.1
0°-40°	3919.4	60.1
0°-60°	5898.7	90.4
0°-90°	6522.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6522.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3141	3141	3141	3141	3141	
5°	3139	3116	3108	3114	3124	298
15°	3009	3001	2989	2997	2999	848
25°	2769	2770	2774	2781	2783	1275
35°	2412	2398	2394	2434	2460	1506
45°	1826	1753	1607	1579	1516	1375
55°	812	868	853	735	559	739
65°	220	456	399	339	197	250
75°	143	221	128	193	152	152
85°	66	78	70	88	72	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3140.8	3140.8	3140.8	3140.8	3140.8
2.5°	3152.1	3136.8	3119.6	3114.9	3122.9
5°	3138.8	3116.2	3108.3	3113.6	3124.2
7.5°	3118.2	3095.0	3093.7	3084.4	3100.3
10°	3087.7	3072.4	3061.1	3066.4	3068.4
12.5°	3049.2	3044.5	3035.9	3028.6	3046.5
15°	3008.7	3001.4	2989.4	2997.4	2999.4
17.5°	2956.9	2952.9	2950.9	2956.9	2974.1
20°	2901.8	2901.8	2903.8	2905.1	2902.4
22.5°	2836.0	2834.0	2836.7	2842.0	2867.2
25°	2769.0	2770.3	2773.6	2780.9	2782.9
27.5°	2694.6	2695.3	2693.9	2701.2	2718.5
30°	2608.9	2606.3	2601.0	2616.9	2635.5
32.5°	2516.0	2510.7	2504.7	2529.3	2549.2
35°	2411.7	2398.4	2393.8	2434.3	2460.2
37.5°	2304.8	2277.6	2267.6	2297.5	2300.8
40°	2173.3	2132.8	2116.2	2087.0	2078.4
42.5°	2015.3	1973.5	1883.8	1838.7	1806.8
45°	1826.1	1753.0	1606.9	1579.0	1516.0
47.5°	1581.7	1504.0	1357.9	1298.2	1226.4
50°	1280.9	1235.7	1145.4	1071.1	946.9
52.5°	1023.9	1033.2	990.7	887.8	733.7
55°	812.1	868.5	852.6	735.1	559.1
57.5°	624.8	746.4	727.1	604.9	427.0
60°	448.2	639.5	600.3	498.0	318.1
62.5°	307.4	545.8	492.0	411.0	243.7
65°	219.8	455.5	399.1	338.7	196.6
67.5°	180.6	372.5	306.1	287.5	171.3
70°	164.7	300.1	222.4	251.0	168.7
72.5°	156.7	251.7	163.3	219.8	160.7
75°	143.4	221.1	128.2	192.6	152.1
77.5°	132.8	191.2	119.5	168.7	148.1
80°	120.2	151.4	118.9	142.8	134.8
82.5°	96.9	110.2	100.3	116.9	108.9
85°	65.7	78.4	69.7	88.3	72.4
87.5°	32.5	38.5	31.2	41.8	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)