

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: P475715

Luminaire Tested: **24GR-LD5-180-A-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475715
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-180-A-UNV-L830-CD1-U
Description: GR 2'X4' LED TROFFER w/ A LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

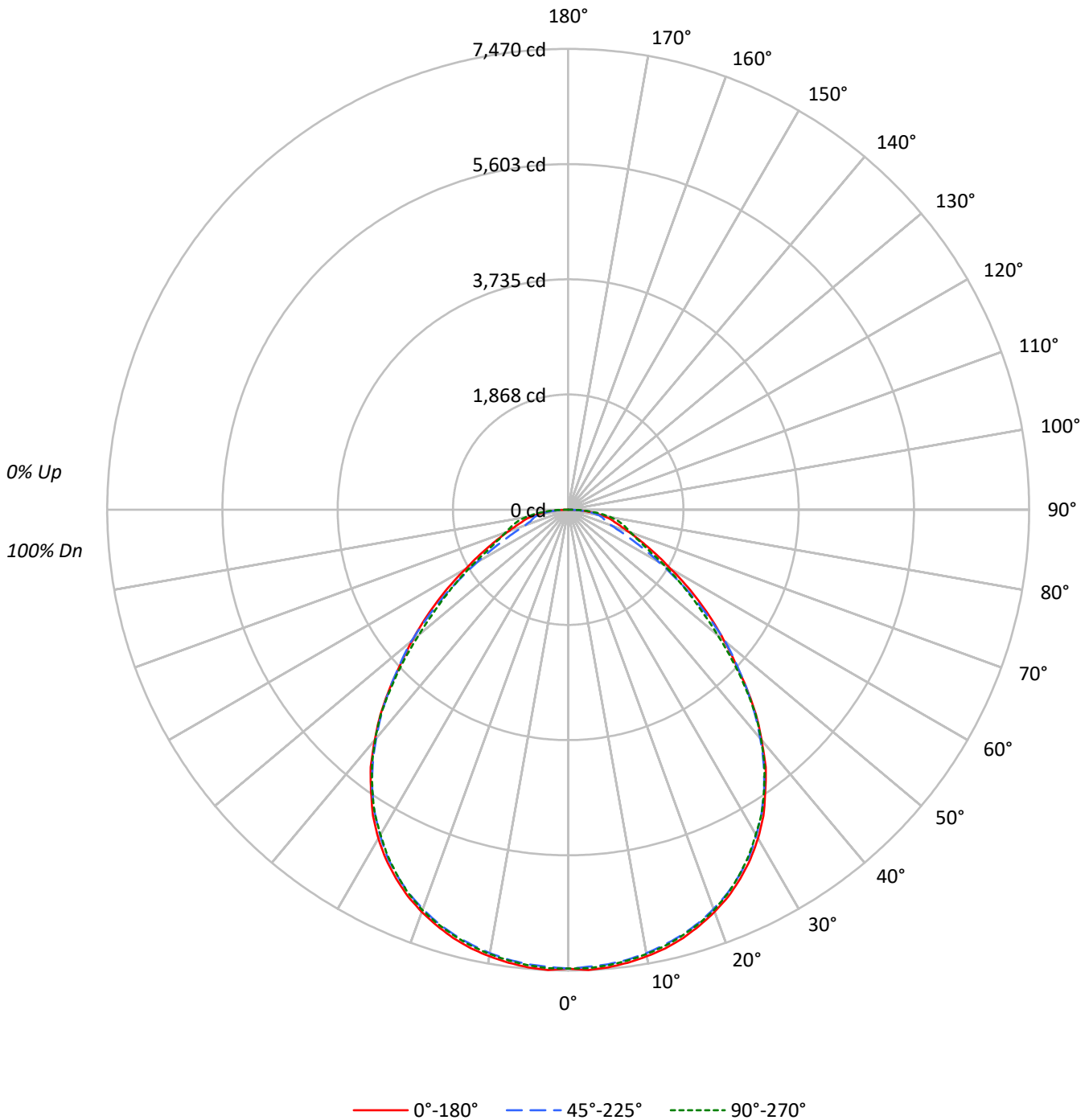
Lumens per Lamp: N/A
Luminaire Lumens: 16910.9 lumens
Efficiency: N/A
Efficacy: 133.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.28
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 126.3
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	110	105	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88					86				
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76					74				
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66					64				
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	58					56				
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51					49				
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45					43				
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41					39				
8	64	51	43	38	62	50	43	37	49	42	37	48	42	37	47	41	37					35				
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33					32				
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31					29				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10008	10008	10008
5°	10057	9990	10012
10°	10041	9973	9994
15°	10013	9934	9957
20°	9935	9863	9889
25°	9796	9725	9717
30°	9559	9471	9448
35°	9148	9091	9091
40°	8560	8511	8546
45°	7772	7759	7696
50°	6894	6946	6605
55°	6058	5792	5656
60°	5157	4575	4812
65°	4506	3557	4246
70°	4074	2928	4238
75°	4077	3125	4735
80°	4490	3845	5418
85°	4627	4318	5913



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	704.3	4.2
10°-20°	2016.3	11.9
20°-30°	3016.3	17.8
30°-40°	3451.7	20.4
40°-50°	3127.3	18.5
50°-60°	2214.1	13.1
60°-70°	1279.0	7.6
70°-80°	775.4	4.6
80°-90°	326.4	1.9
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°	5737.0	33.9
0°-40°	9188.7	54.3
0°-60°	14530.1	85.9
0°-90°	16910.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16910.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7438	7438	7438	7438	7438	
5°	7446	7420	7396	7395	7413	708
15°	7188	7160	7132	7132	7148	2027
25°	6599	6572	6550	6546	6546	3035
35°	5570	5545	5535	5526	5535	3475
45°	4084	4076	4078	4048	4044	3147
55°	2583	2496	2469	2396	2411	2314
65°	1415	1269	1117	1279	1334	1423
75°	784	703	601	773	911	840
85°	300	270	280	358	383	322
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7438.0	7438.0	7438.0	7438.0	7438.0
2.5°	7469.6	7441.3	7416.3	7419.7	7438.0
5°	7446.3	7419.7	7396.3	7394.7	7413.0
7.5°	7406.3	7383.0	7356.4	7356.4	7371.4
10°	7349.7	7326.4	7299.8	7298.1	7314.8
12.5°	7283.1	7253.1	7224.8	7224.8	7243.2
15°	7188.2	7159.9	7131.6	7131.6	7148.2
17.5°	7071.6	7046.7	7023.4	7025.0	7038.3
20°	6938.4	6913.5	6888.5	6891.8	6906.8
22.5°	6785.3	6755.3	6735.3	6733.6	6743.6
25°	6598.8	6572.1	6550.5	6545.5	6545.5
27.5°	6390.6	6362.3	6347.3	6324.0	6330.7
30°	6152.5	6122.5	6095.9	6082.6	6080.9
32.5°	5884.4	5854.5	5831.2	5829.5	5836.1
35°	5569.7	5544.8	5534.8	5526.4	5534.8
37.5°	5258.4	5211.7	5203.4	5201.7	5223.4
40°	4873.7	4857.1	4845.4	4837.1	4865.4
42.5°	4504.1	4470.8	4474.1	4442.5	4492.4
45°	4084.5	4076.1	4077.8	4047.8	4044.5
47.5°	3668.2	3666.5	3691.5	3608.3	3603.3
50°	3293.6	3276.9	3318.5	3190.3	3155.4
52.5°	2935.6	2888.9	2875.6	2759.1	2759.1
55°	2582.6	2496.0	2469.3	2396.1	2411.1
57.5°	2247.9	2124.7	2069.7	2068.0	2093.0
60°	1916.5	1776.7	1700.1	1760.0	1788.3
62.5°	1653.4	1500.2	1383.7	1496.9	1523.6
65°	1415.3	1268.8	1117.3	1278.8	1333.7
67.5°	1210.5	1089.0	899.1	1110.6	1183.9
70°	1035.7	927.5	744.3	979.1	1077.3
72.5°	897.5	807.6	647.7	874.2	992.4
75°	784.3	702.7	601.1	772.6	910.8
77.5°	694.3	597.8	562.8	676.0	817.6
80°	579.5	491.2	496.2	581.1	699.3
82.5°	446.2	379.6	399.6	481.2	549.5
85°	299.7	269.7	279.7	358.0	383.0
87.5°	148.2	143.2	153.2	209.8	209.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)