

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: P475535

Luminaire Tested: **24GR-LD5-180-F1-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475535
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-180-F1-UNV-L830-CD1-U
Description: GR 2'X4' LED TROFFER w/ F1 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17433.1 lumens
Efficiency: N/A
Efficacy: 138.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

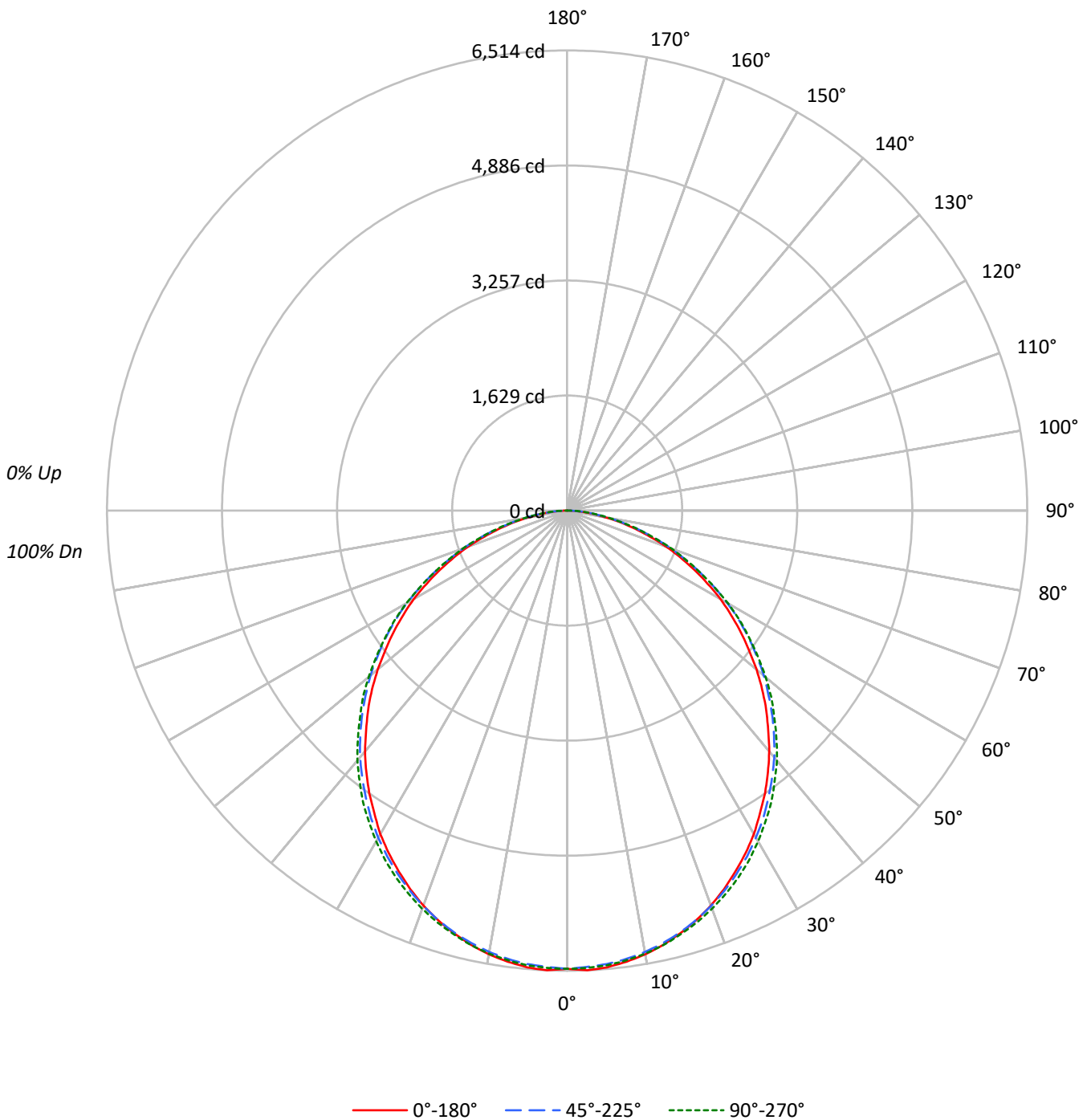
Input Watts (W): 126.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8728	8728	8728
5°	8766	8703	8726
10°	8715	8668	8699
15°	8628	8612	8650
20°	8519	8529	8588
25°	8368	8424	8511
30°	8216	8306	8399
35°	8020	8155	8279
40°	7817	8012	8114
45°	7583	7814	7896
50°	7326	7608	7676
55°	7039	7351	7392
60°	6749	7048	7076
65°	6325	6624	6608
70°	5858	6127	6188
75°	5191	5493	5528
80°	4319	4637	4743
85°	3273	3589	4039



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	613.0	3.5
10°-20°	1745.4	10.0
20°-30°	2615.2	15.0
30°-40°	3102.7	17.8
40°-50°	3151.1	18.1
50°-60°	2775.0	15.9
60°-70°	2039.1	11.7
70°-80°	1109.0	6.4
80°-90°	282.5	1.6
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°	4973.6	28.5
0°-40°	8076.4	46.3
0°-60°	14002.5	80.3
0°-90°	17433.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17433.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6487	6487	6487	6487	6487	
5°	6490	6463	6444	6444	6461	616
15°	6194	6182	6182	6191	6210	1747
25°	5637	5644	5674	5707	5733	2597
35°	4883	4910	4965	5014	5040	3052
45°	3985	4018	4107	4154	4149	3071
55°	3000	3043	3134	3163	3151	2683
65°	1987	2019	2081	2096	2076	1969
75°	998	1019	1057	1060	1063	1062
85°	212	217	232	253	262	257
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6486.6	6486.6	6486.6	6486.6	6486.6
2.5°	6513.9	6488.3	6466.0	6466.0	6481.4
5°	6490.0	6462.6	6443.8	6443.8	6460.9
7.5°	6440.4	6418.2	6402.8	6402.8	6421.6
10°	6378.8	6356.6	6344.7	6346.4	6366.9
12.5°	6296.8	6276.3	6271.1	6274.6	6300.2
15°	6194.2	6182.2	6182.2	6190.8	6209.6
17.5°	6079.7	6067.7	6076.2	6088.2	6112.1
20°	5949.7	5941.2	5956.6	5975.4	5997.6
22.5°	5801.0	5797.6	5823.2	5848.8	5871.1
25°	5636.8	5643.7	5674.5	5706.9	5732.6
27.5°	5467.6	5474.4	5517.2	5551.4	5577.0
30°	5288.1	5291.5	5346.2	5387.2	5406.0
32.5°	5079.5	5106.8	5165.0	5204.3	5221.4
35°	4882.9	4910.2	4964.9	5014.5	5040.2
37.5°	4669.2	4693.1	4764.9	4817.9	4826.4
40°	4450.3	4472.5	4561.4	4605.9	4619.6
42.5°	4211.0	4253.7	4334.1	4378.5	4387.1
45°	3985.3	4017.8	4106.7	4154.5	4149.4
47.5°	3744.2	3780.1	3867.3	3913.5	3922.0
50°	3499.7	3540.8	3634.8	3665.6	3667.3
52.5°	3243.3	3296.3	3381.8	3422.8	3409.1
55°	3000.5	3043.2	3133.9	3162.9	3151.0
57.5°	2750.9	2798.8	2882.5	2897.9	2899.6
60°	2508.1	2547.4	2619.2	2634.6	2629.5
62.5°	2241.4	2280.7	2345.7	2361.1	2349.1
65°	1986.7	2019.1	2080.7	2096.1	2075.6
67.5°	1733.6	1766.1	1814.0	1837.9	1815.7
70°	1489.1	1514.8	1557.5	1571.2	1572.9
72.5°	1229.3	1275.4	1306.2	1304.5	1299.4
75°	998.5	1019.0	1056.6	1060.0	1063.4
77.5°	777.9	783.0	822.4	832.6	825.8
80°	557.4	576.2	598.4	610.4	612.1
82.5°	367.6	381.3	400.1	420.6	420.6
85°	212.0	217.1	232.5	253.0	261.6
87.5°	85.5	94.0	109.4	124.8	126.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)