

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: P475565

Luminaire Tested: **24GR-LD5-180-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475565
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-L840-CD1-U
Description: GR 2'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: 18408.6 lumens
Efficiency: N/A
Efficacy: 145.8 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

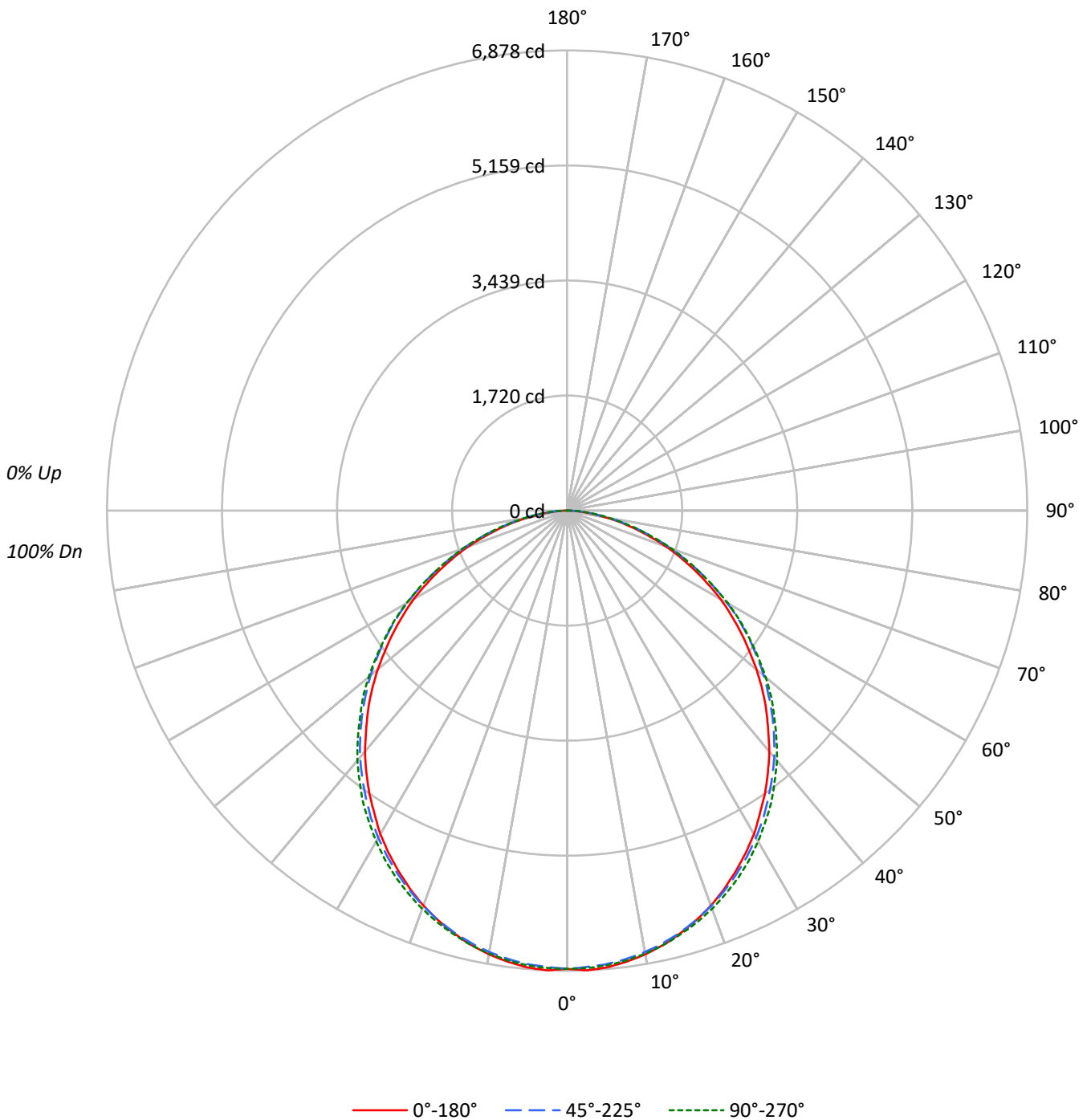
Input Watts (W): 126.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9216	9216	9216
5°	9256	9190	9215
10°	9203	9153	9186
15°	9111	9093	9134
20°	8996	9006	9068
25°	8837	8896	8987
30°	8676	8771	8869
35°	8469	8612	8742
40°	8254	8460	8568
45°	8008	8252	8337
50°	7736	8034	8106
55°	7432	7763	7805
60°	7127	7443	7472
65°	6679	6995	6978
70°	6186	6470	6534
75°	5481	5800	5837
80°	4560	4896	5008
85°	3457	3790	4264



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	647.3	3.5
10°-20°	1843.1	10.0
20°-30°	2761.5	15.0
30°-40°	3276.4	17.8
40°-50°	3327.4	18.1
50°-60°	2930.3	15.9
60°-70°	2153.2	11.7
70°-80°	1171.1	6.4
80°-90°	298.3	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°	5252.0	28.5
0°-40°	8528.3	46.3
0°-60°	14786.0	80.3
0°-90°	18408.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18408.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6850	6850	6850	6850	6850	
5°	6853	6824	6804	6804	6822	650
15°	6541	6528	6528	6537	6557	1844
25°	5952	5960	5992	6026	6053	2743
35°	5156	5185	5243	5295	5322	3223
45°	4208	4243	4336	4387	4382	3243
55°	3168	3214	3309	3340	3327	2833
65°	2098	2132	2197	2213	2192	2079
75°	1054	1076	1116	1119	1123	1121
85°	224	229	246	267	276	271
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6849.5	6849.5	6849.5	6849.5	6849.5
2.5°	6878.4	6851.3	6827.9	6827.9	6844.1
5°	6853.1	6824.3	6804.4	6804.4	6822.5
7.5°	6800.8	6777.3	6761.1	6761.1	6780.9
10°	6735.8	6712.3	6699.7	6701.5	6723.2
12.5°	6649.1	6627.5	6622.1	6625.7	6652.8
15°	6540.8	6528.2	6528.2	6537.2	6557.1
17.5°	6419.9	6407.2	6416.2	6428.9	6454.2
20°	6282.7	6273.6	6289.9	6309.7	6333.2
22.5°	6125.6	6122.0	6149.1	6176.1	6199.6
25°	5952.3	5959.5	5992.0	6026.3	6053.4
27.5°	5773.5	5780.8	5825.9	5862.0	5889.1
30°	5584.0	5587.6	5645.4	5688.7	5708.5
32.5°	5363.7	5392.6	5454.0	5495.5	5513.6
35°	5156.1	5185.0	5242.8	5295.1	5322.2
37.5°	4930.4	4955.7	5031.5	5087.5	5096.5
40°	4699.4	4722.8	4816.7	4863.6	4878.1
42.5°	4446.6	4491.7	4576.6	4623.5	4632.6
45°	4208.3	4242.6	4336.5	4387.0	4381.6
47.5°	3953.7	3991.7	4083.7	4132.5	4141.5
50°	3695.6	3738.9	3838.2	3870.7	3872.5
52.5°	3424.8	3480.7	3571.0	3614.3	3599.9
55°	3168.4	3213.5	3309.2	3339.9	3327.3
57.5°	2904.8	2955.4	3043.8	3060.1	3061.9
60°	2648.5	2690.0	2765.8	2782.1	2776.6
62.5°	2366.8	2408.3	2477.0	2493.2	2480.6
65°	2097.8	2132.1	2197.1	2213.4	2191.7
67.5°	1830.6	1864.9	1915.5	1940.8	1917.3
70°	1572.5	1599.5	1644.7	1659.1	1660.9
72.5°	1298.1	1346.8	1379.3	1377.5	1372.1
75°	1054.3	1076.0	1115.7	1119.3	1122.9
77.5°	821.4	826.9	868.4	879.2	872.0
80°	588.5	608.4	631.9	644.5	646.3
82.5°	388.2	402.6	422.5	444.1	444.1
85°	223.9	229.3	245.5	267.2	276.2
87.5°	90.3	99.3	115.5	131.8	133.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)