

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: P475745

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475745
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-L840-CD1-U
Description: GR 2'X4' LED TROFFER w/ A LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

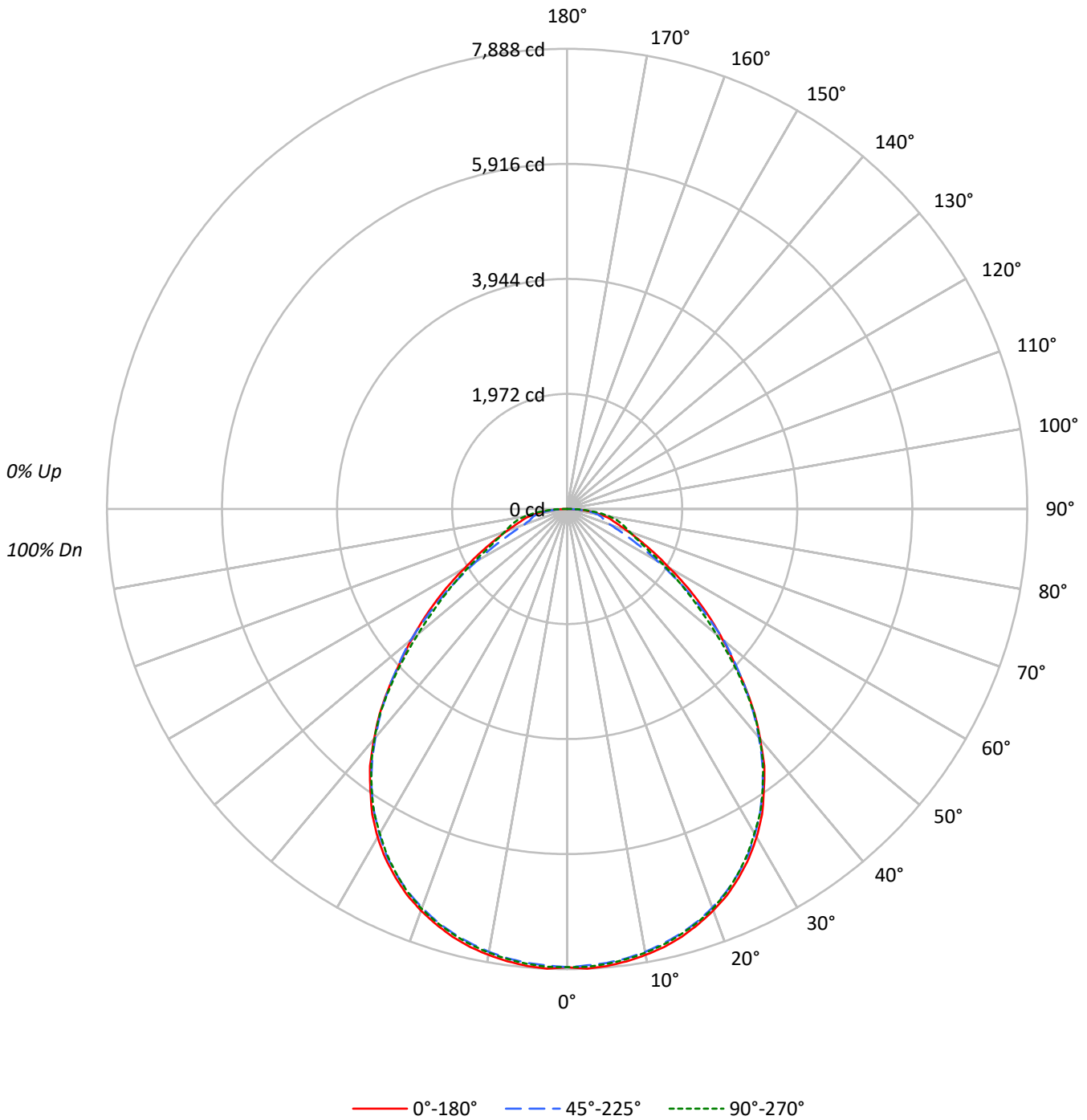
Lumens per Lamp: N/A
Luminaire Lumens: 17857.3 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.28
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	10568	10568	10568
5°	10620	10549	10572
10°	10603	10531	10553
15°	10573	10490	10514
20°	10491	10415	10443
25°	10345	10269	10261
30°	10094	10001	9976
35°	9660	9600	9600
40°	9039	8987	9024
45°	8207	8193	8127
50°	7280	7335	6974
55°	6397	6117	5972
60°	5446	4831	5082
65°	4758	3756	4484
70°	4302	3092	4475
75°	4305	3300	5000
80°	4741	4060	5722
85°	4886	4560	6243



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	743.7	4.2
10°-20°	2129.2	11.9
20°-30°	3185.1	17.8
30°-40°	3644.9	20.4
40°-50°	3302.4	18.5
50°-60°	2338.0	13.1
60°-70°	1350.6	7.6
70°-80°	818.8	4.6
80°-90°	344.6	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°	6058.0	33.9
0°-40°	9702.9	54.3
0°-60°	15343.2	85.9
0°-90°	17857.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17857.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7854	7854	7854	7854	7854	
5°	7863	7835	7810	7808	7828	747
15°	7590	7561	7531	7531	7548	2140
25°	6968	6940	6917	6912	6912	3205
35°	5881	5855	5844	5836	5844	3669
45°	4313	4304	4306	4274	4271	3323
55°	2727	2636	2608	2530	2546	2444
65°	1494	1340	1180	1350	1408	1502
75°	828	742	635	816	962	887
85°	316	285	295	378	404	340
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7854.2	7854.2	7854.2	7854.2	7854.2
2.5°	7887.6	7857.7	7831.3	7834.8	7854.2
5°	7863.0	7834.8	7810.2	7808.5	7827.8
7.5°	7820.8	7796.2	7768.0	7768.0	7783.9
10°	7761.0	7736.4	7708.2	7706.5	7724.1
12.5°	7690.7	7659.0	7629.1	7629.1	7648.5
15°	7590.4	7560.6	7530.7	7530.7	7548.2
17.5°	7467.4	7441.0	7416.4	7418.1	7432.2
20°	7326.7	7300.3	7274.0	7277.5	7293.3
22.5°	7164.9	7133.3	7112.2	7110.4	7121.0
25°	6968.0	6939.9	6917.0	6911.8	6911.8
27.5°	6748.2	6718.3	6702.5	6677.9	6684.9
30°	6496.8	6465.2	6437.0	6423.0	6421.2
32.5°	6213.7	6182.1	6157.5	6155.7	6162.7
35°	5881.4	5855.0	5844.5	5835.7	5844.5
37.5°	5552.6	5503.4	5494.6	5492.8	5515.7
40°	5146.5	5128.9	5116.6	5107.8	5137.7
42.5°	4756.1	4721.0	4724.5	4691.1	4743.8
45°	4313.0	4304.2	4306.0	4274.4	4270.8
47.5°	3873.5	3871.7	3898.1	3810.2	3804.9
50°	3477.9	3460.3	3504.2	3368.8	3331.9
52.5°	3099.8	3050.6	3036.5	2913.5	2913.5
55°	2727.1	2635.6	2607.5	2530.1	2546.0
57.5°	2373.7	2243.6	2185.5	2183.8	2210.1
60°	2023.8	1876.1	1795.2	1858.5	1888.4
62.5°	1746.0	1584.2	1461.1	1580.7	1608.8
65°	1494.5	1339.8	1179.8	1350.4	1408.4
67.5°	1278.3	1149.9	949.5	1172.8	1250.1
70°	1093.6	979.4	785.9	1033.9	1137.6
72.5°	947.7	852.8	684.0	923.1	1047.9
75°	828.1	742.0	634.7	815.8	961.8
77.5°	733.2	631.2	594.3	713.9	863.3
80°	611.9	518.7	524.0	613.6	738.5
82.5°	471.2	400.9	422.0	508.1	580.2
85°	316.5	284.8	295.4	378.0	404.4
87.5°	156.5	151.2	161.8	221.5	221.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)