

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: P231812

Luminaire Tested: **24GR-LD5-180-A-UNV-L930-CD2-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P231812
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-180-A-UNV-L930-CD2-U
Description: METALUX 2X4 GRLED TROFFER
WITH A LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14405.7 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

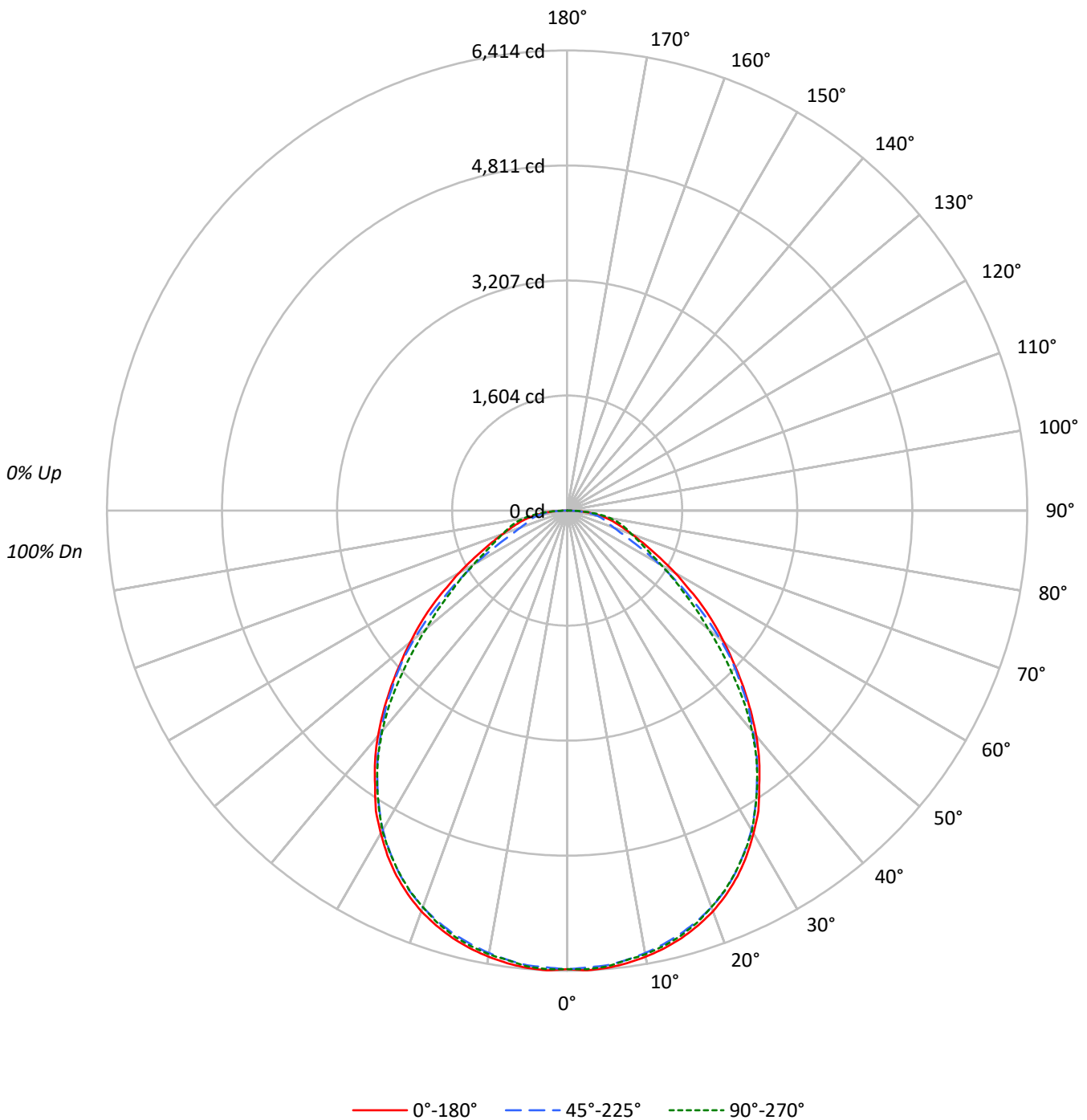
Input Watts (W): 144.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63
4	86	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9790	9790	9790
5°	9837	9782	9806
10°	9820	9740	9768
15°	9782	9683	9726
20°	9689	9591	9587
25°	9500	9399	9391
30°	9187	9092	9112
35°	8726	8626	8639
40°	8205	8063	8014
45°	7520	7419	7125
50°	6798	6613	6114
55°	6103	5556	5271
60°	5345	4472	4636
65°	4662	3516	4267
70°	4265	3069	4265
75°	4267	3266	4702
80°	4632	3847	5358
85°	5084	4342	5750



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	605.3	4.2
10°-20°	1727.3	12.0
20°-30°	2561.3	17.8
30°-40°	2889.4	20.1
40°-50°	2617.0	18.2
50°-60°	1888.0	13.1
60°-70°	1127.3	7.8
70°-80°	696.7	4.8
80°-90°	293.5	2.0
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°	4893.9	34.0
0°-40°	7783.3	54.0
0°-60°	12288.2	85.3
0°-90°	14405.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14405.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6392	6392	6392	6392	6392	
5°	6398	6389	6363	6356	6378	608
15°	6169	6131	6107	6109	6134	1739
25°	5622	5590	5562	5542	5557	2583
35°	4667	4660	4614	4616	4620	2920
45°	3472	3450	3425	3340	3289	2675
55°	2286	2214	2081	1978	1974	2040
65°	1286	1133	970	1102	1177	1294
75°	721	625	552	688	794	770
85°	289	254	247	323	327	302
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6391.7	6391.7	6391.7	6391.7	6391.7
2.5°	6414.0	6396.1	6373.9	6387.2	6398.4
5°	6398.4	6389.4	6362.7	6356.1	6378.3
7.5°	6364.9	6342.7	6318.3	6329.3	6320.5
10°	6313.8	6293.7	6262.6	6264.8	6280.4
12.5°	6251.4	6227.0	6193.6	6202.5	6215.8
15°	6169.1	6131.3	6106.8	6109.0	6133.5
17.5°	6064.6	6035.6	6004.4	6011.1	6022.2
20°	5944.3	5928.8	5884.2	5870.9	5882.0
22.5°	5793.0	5764.1	5739.6	5732.9	5735.2
25°	5621.7	5590.5	5561.6	5541.6	5557.1
27.5°	5421.3	5394.6	5356.8	5350.1	5363.5
30°	5194.4	5174.3	5140.9	5132.1	5152.1
32.5°	4962.9	4929.5	4882.8	4882.8	4887.2
35°	4666.9	4660.2	4613.5	4615.7	4620.1
37.5°	4399.9	4368.7	4342.0	4315.2	4328.6
40°	4103.9	4068.3	4032.6	4014.8	4008.2
42.5°	3785.6	3758.9	3743.3	3678.8	3663.2
45°	3471.8	3449.6	3425.1	3340.5	3289.3
47.5°	3151.3	3146.9	3126.8	2977.7	2926.6
50°	2853.1	2846.5	2775.2	2617.2	2566.0
52.5°	2570.5	2525.9	2432.4	2276.7	2267.8
55°	2285.6	2214.4	2080.8	1978.5	1974.1
57.5°	1985.1	1900.6	1764.8	1709.2	1738.2
60°	1744.8	1615.7	1459.9	1466.7	1513.3
62.5°	1495.5	1350.9	1197.4	1264.1	1319.7
65°	1286.3	1132.7	970.3	1101.6	1177.3
67.5°	1103.9	961.4	805.6	981.5	1054.9
70°	952.5	836.8	685.4	870.2	952.5
72.5°	832.4	725.5	607.5	781.1	876.8
75°	721.0	625.3	551.9	687.7	794.5
77.5°	625.3	531.9	498.5	607.5	712.2
80°	525.2	440.7	436.2	529.6	607.5
82.5°	409.5	351.6	351.6	442.9	489.6
85°	289.3	253.7	247.1	322.7	327.2
87.5°	149.1	142.4	129.1	169.2	169.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)