

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: P231860

Luminaire Tested: **24GR-LD5-180-A19/156-UNV-L930-CD2-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P231860
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-180-A19/156-UNV-L930-CD2-U
Description: METALUX 2X4 GRLED TROFFER
WITH A19/156 LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13858.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

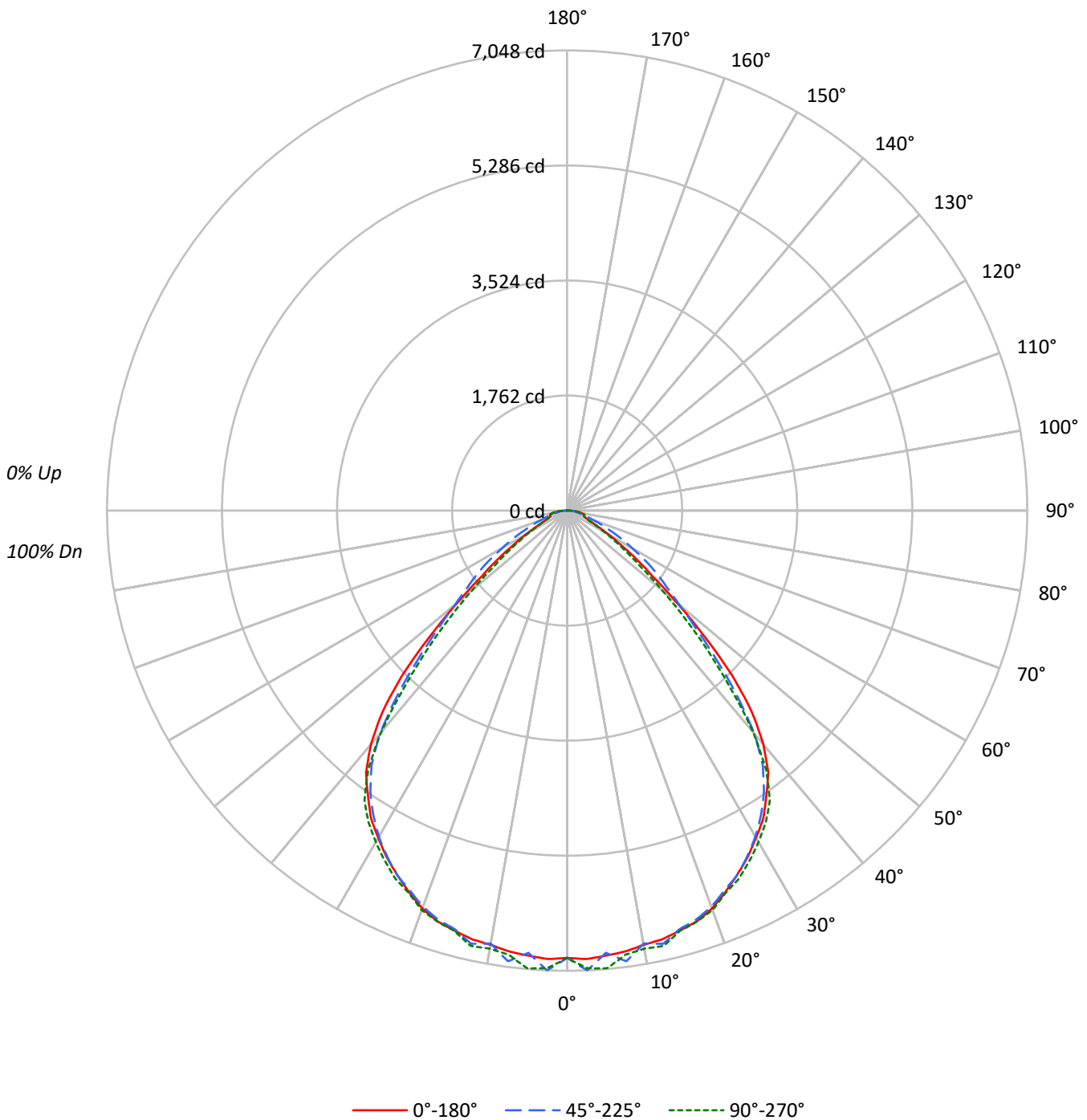
Input Watts (W): 144.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90					88				
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79					77				
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70					68				
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62					60				
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55					53				
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50					48				
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45					43				
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41					39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37					36				
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10495	10495	10495
5°	10518	10450	10819
10°	10501	10470	10598
15°	10562	10527	10569
20°	10570	10527	10614
25°	10407	10414	10516
30°	10233	10202	10367
35°	9945	9825	10120
40°	9340	8922	8873
45°	7742	7004	6643
50°	5208	5314	4539
55°	3435	4457	2977
60°	2202	3518	2038
65°	1420	2686	1379
70°	1256	1923	1256
75°	1620	1527	1633
80°	1983	1315	2081
85°	2307	1956	2425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	656.1	4.7
10°-20°	1883.9	13.6
20°-30°	2836.2	20.5
30°-40°	3287.3	23.7
40°-50°	2567.9	18.5
50°-60°	1371.2	9.9
60°-70°	705.1	5.1
70°-80°	398.9	2.9
80°-90°	151.5	1.1
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°	5376.1	38.8
0°-40°	8663.4	62.5
0°-60°	12602.5	90.9
0°-90°	13858.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13858.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6852	6852	6852	6852	6852	
5°	6841	7033	6797	6984	7037	650
15°	6661	6703	6639	6681	6666	1881
25°	6158	6138	6162	6154	6223	2838
35°	5319	5294	5254	5359	5412	3316
45°	3574	3576	3234	3205	3067	2693
55°	1286	1627	1669	1504	1115	1187
65°	392	817	741	814	381	430
75°	274	514	258	481	276	277
85°	131	171	111	171	138	135
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6852.4	6852.4	6852.4	6852.4	6852.4
2.5°	6874.6	6999.3	7048.2	6988.1	7014.9
5°	6841.3	7032.6	6796.7	6983.7	7037.1
7.5°	6810.1	6790.1	6961.5	6783.4	6859.1
10°	6752.2	6765.6	6732.2	6859.1	6814.5
12.5°	6725.6	6803.5	6796.7	6732.2	6830.1
15°	6661.0	6703.3	6638.7	6681.0	6665.5
17.5°	6596.4	6576.4	6569.8	6587.6	6603.1
20°	6485.1	6418.4	6458.5	6462.9	6511.9
22.5°	6324.9	6284.9	6293.7	6333.8	6338.3
25°	6158.0	6138.0	6162.5	6153.6	6222.6
27.5°	5984.4	5957.7	5973.3	6006.7	6049.0
30°	5786.3	5779.7	5768.5	5797.5	5862.0
32.5°	5590.5	5537.1	5528.2	5588.3	5661.7
35°	5319.0	5294.5	5254.5	5359.0	5412.5
37.5°	5060.9	4985.2	4920.7	4983.0	5005.2
40°	4671.4	4613.5	4462.2	4468.8	4437.7
42.5°	4192.9	4150.6	3861.3	3810.1	3723.3
45°	3574.2	3576.4	3233.7	3204.7	3066.8
47.5°	2855.3	2982.2	2683.9	2650.6	2445.8
50°	2185.5	2414.7	2230.0	2176.5	1905.0
52.5°	1640.2	1976.3	1918.4	1802.7	1428.8
55°	1286.3	1626.9	1669.1	1504.5	1115.0
57.5°	968.1	1339.8	1408.8	1273.0	861.2
60°	718.8	1128.3	1148.4	1094.9	665.4
62.5°	534.1	959.2	932.5	939.1	494.0
65°	391.7	816.8	741.1	814.5	380.6
67.5°	320.5	707.7	576.4	705.5	309.4
70°	280.4	627.6	429.5	620.9	280.4
72.5°	271.5	576.4	340.5	551.9	273.7
75°	273.7	514.1	258.1	480.7	275.9
77.5°	251.5	422.9	195.8	409.5	262.6
80°	224.8	320.5	149.1	325.0	235.9
82.5°	191.4	233.7	120.2	240.3	198.1
85°	131.3	171.4	111.3	171.4	138.0
87.5°	62.3	102.3	69.0	97.9	71.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)