

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: P231863

Luminaire Tested: **24GR-LD5-180-A19/156-UNV-L950-CD2-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P231863
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-L950-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: 17584.9 lumens
Efficiency: N/A
Efficacy: 121.9 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

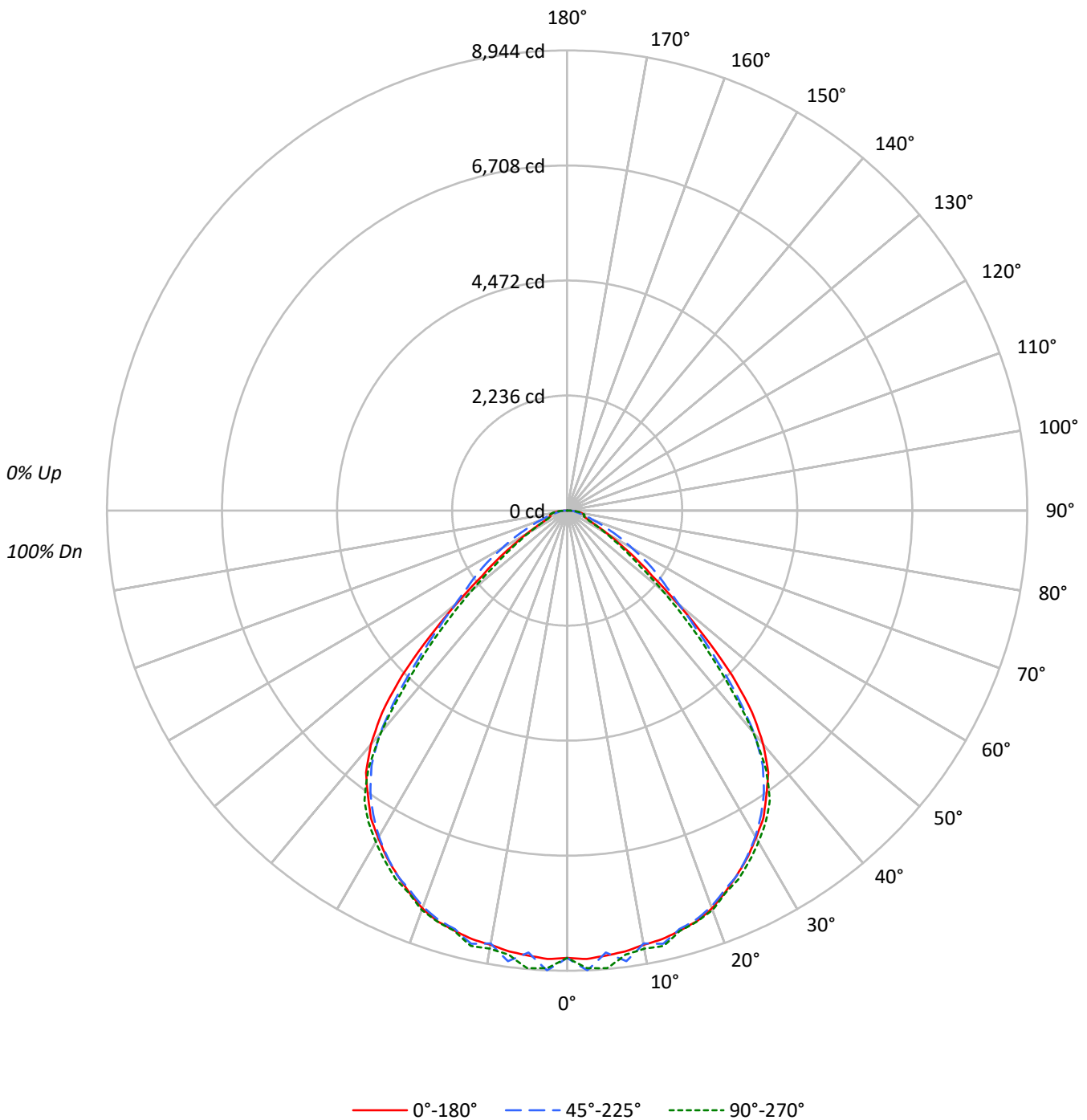
Input Watts (W): 144.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13318	13318	13318
5°	13347	13260	13729
10°	13326	13286	13449
15°	13403	13358	13411
20°	13413	13358	13468
25°	13206	13215	13344
30°	12986	12946	13155
35°	12620	12467	12842
40°	11852	11321	11259
45°	9824	8888	8429
50°	6608	6742	5760
55°	4359	5656	3778
60°	2794	4464	2587
65°	1801	3408	1750
70°	1593	2441	1593
75°	2055	1939	2072
80°	2516	1669	2641
85°	2928	2481	3077



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	832.5	4.7
10°-20°	2390.5	13.6
20°-30°	3598.9	20.5
30°-40°	4171.4	23.7
40°-50°	3258.5	18.5
50°-60°	1739.9	9.9
60°-70°	894.7	5.1
70°-80°	506.1	2.9
80°-90°	192.2	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°	6822.0	38.8
0°-40°	10993.3	62.5
0°-60°	15991.8	90.9
0°-90°	17584.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17584.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8695	8695	8695	8695	8695	
5°	8681	8924	8625	8862	8930	825
15°	8452	8506	8424	8478	8458	2387
25°	7814	7789	7820	7808	7896	3601
35°	6750	6718	6668	6800	6868	4208
45°	4535	4538	4103	4067	3892	3418
55°	1632	2064	2118	1909	1415	1506
65°	497	1036	940	1034	483	546
75°	347	652	328	610	350	352
85°	167	218	141	218	175	172
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8695.2	8695.2	8695.2	8695.2	8695.2
2.5°	8723.4	8881.6	8943.8	8867.5	8901.3
5°	8681.0	8923.9	8624.6	8861.9	8929.6
7.5°	8641.5	8616.2	8833.6	8607.7	8703.7
10°	8568.1	8585.0	8542.7	8703.7	8647.2
12.5°	8534.3	8633.1	8624.6	8542.7	8666.9
15°	8452.4	8506.0	8424.1	8477.7	8458.0
17.5°	8370.5	8345.1	8336.5	8359.2	8378.9
20°	8229.2	8144.5	8195.4	8201.0	8263.2
22.5°	8025.9	7975.1	7986.3	8037.2	8042.9
25°	7814.1	7788.7	7819.7	7808.4	7896.0
27.5°	7593.9	7559.9	7579.7	7622.1	7675.8
30°	7342.5	7334.1	7319.9	7356.6	7438.5
32.5°	7094.0	7026.2	7014.9	7091.2	7184.4
35°	6749.5	6718.3	6667.6	6800.2	6868.0
37.5°	6421.9	6325.9	6244.0	6323.0	6351.3
40°	5927.6	5854.2	5662.2	5670.7	5631.1
42.5°	5320.5	5266.8	4899.7	4834.7	4724.6
45°	4535.4	4538.3	4103.3	4066.6	3891.5
47.5°	3623.3	3784.2	3405.8	3363.5	3103.6
50°	2773.2	3064.1	2829.6	2761.9	2417.4
52.5°	2081.4	2507.8	2434.3	2287.5	1813.0
55°	1632.3	2064.3	2118.0	1909.1	1414.9
57.5°	1228.5	1700.1	1787.6	1615.3	1092.9
60°	912.2	1431.8	1457.2	1389.4	844.4
62.5°	677.8	1217.1	1183.3	1191.7	626.9
65°	497.0	1036.4	940.4	1033.6	482.9
67.5°	406.7	898.1	731.5	895.3	392.6
70°	355.8	796.3	545.0	787.9	355.8
72.5°	344.5	731.5	432.1	700.3	347.3
75°	347.3	652.4	327.6	610.0	350.2
77.5°	319.1	536.5	248.5	519.6	333.2
80°	285.2	406.7	189.2	412.3	299.4
82.5°	242.9	296.6	152.5	305.0	251.3
85°	166.6	217.5	141.2	217.5	175.1
87.5°	79.1	129.9	87.5	124.2	90.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)