

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: P293940

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293940
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-A19/156-UNV-L83050-W2A1-U-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5003.0 lumens
Efficiency: N/A
Efficacy: 145.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

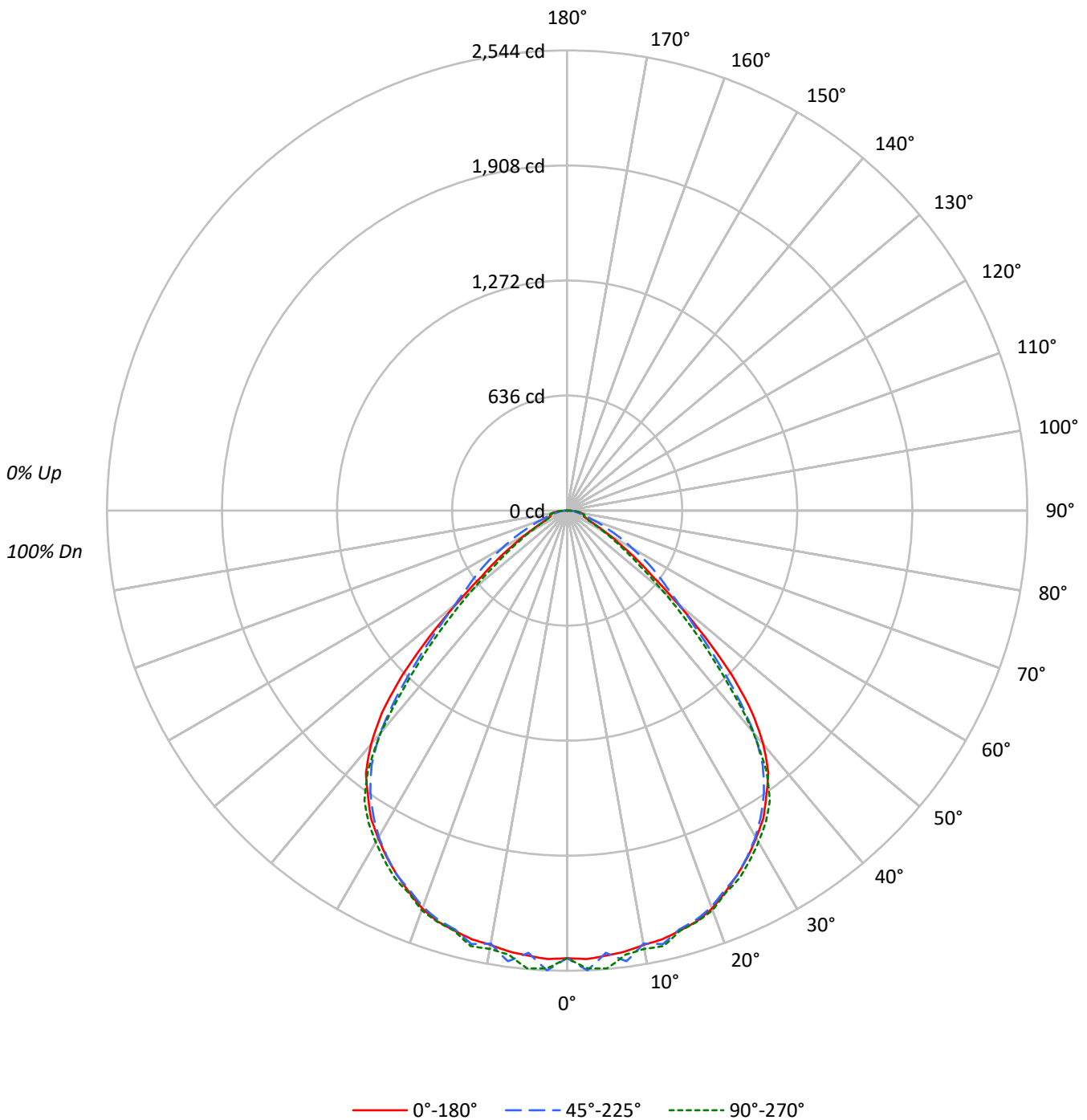
Input Watts (W): 34.41
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3328	3328	3328
5°	3336	3314	3431
10°	3330	3321	3361
15°	3350	3338	3352
20°	3352	3338	3366
25°	3301	3303	3335
30°	3246	3236	3288
35°	3154	3116	3210
40°	2962	2829	2814
45°	2455	2221	2107
50°	1652	1685	1440
55°	1089	1414	944
60°	698	1116	646
65°	450	852	437
70°	398	610	398
75°	514	485	518
80°	628	417	660
85°	732	621	769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.9	4.7
10°-20°	680.1	13.6
20°-30°	1023.9	20.5
30°-40°	1186.8	23.7
40°-50°	927.1	18.5
50°-60°	495.0	9.9
60°-70°	254.6	5.1
70°-80°	144.0	2.9
80°-90°	54.7	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°	1940.9	38.8
0°-40°	3127.7	62.5
0°-60°	4549.8	90.9
0°-90°	5003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2474	2474	2474	2474	2474	
5°	2470	2539	2454	2521	2540	235
15°	2405	2420	2397	2412	2406	679
25°	2223	2216	2225	2222	2246	1024
35°	1920	1911	1897	1935	1954	1197
45°	1290	1291	1167	1157	1107	972
55°	464	587	603	543	402	429
65°	141	295	268	294	137	155
75°	99	186	93	174	100	100
85°	47	62	40	62	50	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2473.8	2473.8	2473.8	2473.8	2473.8
2.5°	2481.9	2526.9	2544.5	2522.9	2532.5
5°	2469.8	2538.9	2453.8	2521.2	2540.5
7.5°	2458.6	2451.3	2513.2	2448.9	2476.3
10°	2437.7	2442.5	2430.5	2476.3	2460.2
12.5°	2428.0	2456.2	2453.8	2430.5	2465.8
15°	2404.7	2420.0	2396.7	2412.0	2406.3
17.5°	2381.4	2374.2	2371.8	2378.2	2383.9
20°	2341.3	2317.2	2331.6	2333.2	2350.9
22.5°	2283.4	2269.0	2272.2	2286.6	2288.2
25°	2223.2	2215.9	2224.8	2221.6	2246.5
27.5°	2160.5	2150.9	2156.5	2168.5	2183.8
30°	2089.0	2086.6	2082.6	2093.0	2116.3
32.5°	2018.3	1999.0	1995.8	2017.5	2044.0
35°	1920.3	1911.4	1897.0	1934.7	1954.0
37.5°	1827.1	1799.7	1776.4	1798.9	1807.0
40°	1686.5	1665.6	1610.9	1613.3	1602.1
42.5°	1513.7	1498.4	1394.0	1375.5	1344.2
45°	1290.3	1291.2	1167.4	1157.0	1107.2
47.5°	1030.8	1076.6	969.0	956.9	883.0
50°	789.0	871.7	805.1	785.8	687.8
52.5°	592.1	713.5	692.6	650.8	515.8
55°	464.4	587.3	602.6	543.1	402.5
57.5°	349.5	483.7	508.6	459.6	310.9
60°	259.5	407.4	414.6	395.3	240.2
62.5°	192.8	346.3	336.6	339.1	178.4
65°	141.4	294.9	267.6	294.1	137.4
67.5°	115.7	255.5	208.1	254.7	111.7
70°	101.2	226.6	155.1	224.2	101.2
72.5°	98.0	208.1	122.9	199.3	98.8
75°	98.8	185.6	93.2	173.5	99.6
77.5°	90.8	152.7	70.7	147.8	94.8
80°	81.1	115.7	53.8	117.3	85.2
82.5°	69.1	84.4	43.4	86.8	71.5
85°	47.4	61.9	40.2	61.9	49.8
87.5°	22.5	37.0	24.9	35.4	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)