

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: P294066

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294066
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-L93050-W2A1-U-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4408.0 lumens
Efficiency: N/A
Efficacy: 128.9 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

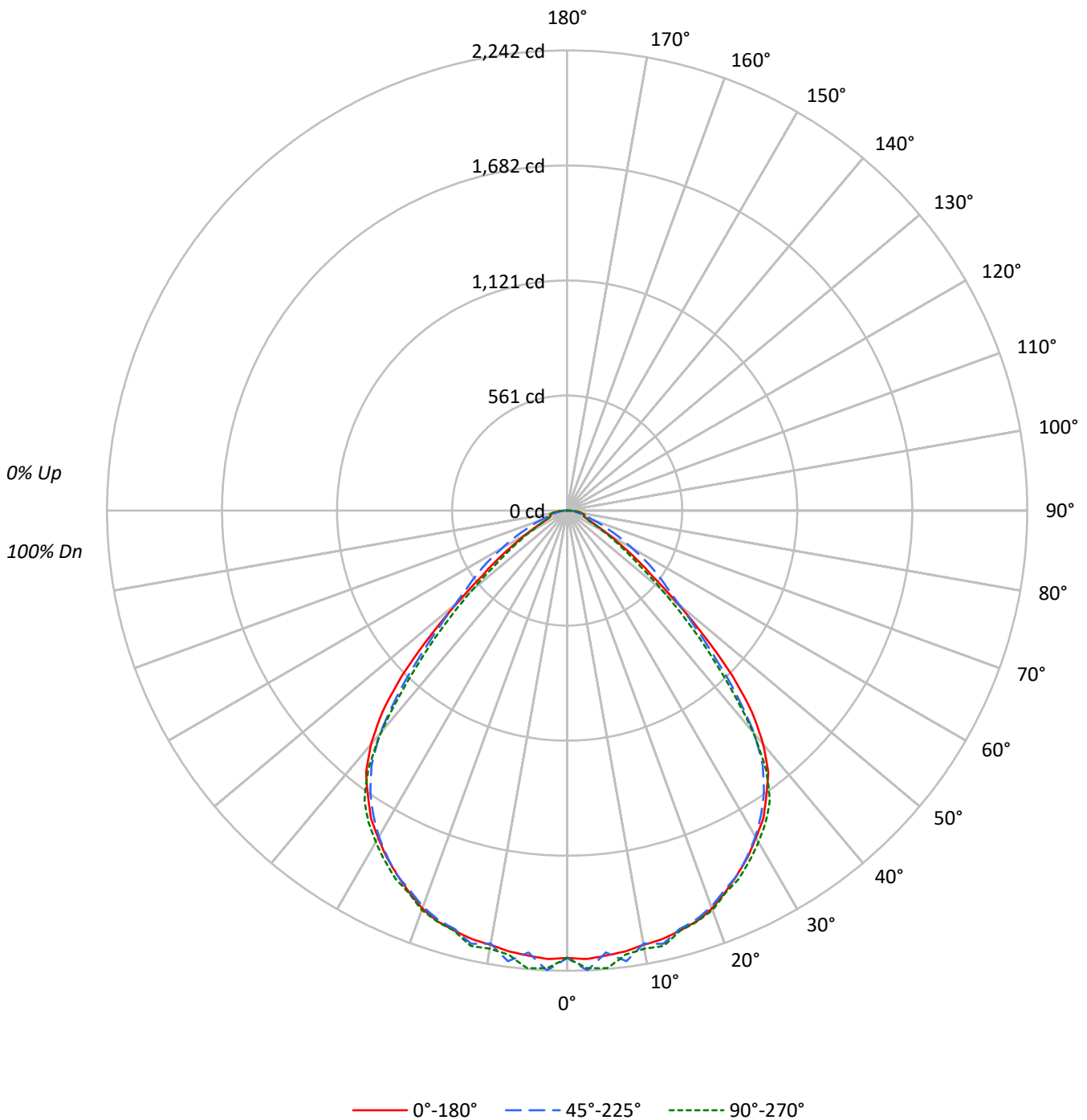
Input Watts (W): 34.207818
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2933	2933	2933
5°	2939	2920	3023
10°	2934	2926	2961
15°	2951	2941	2953
20°	2954	2941	2966
25°	2908	2910	2938
30°	2859	2851	2897
35°	2779	2745	2828
40°	2610	2493	2479
45°	2163	1957	1856
50°	1455	1485	1268
55°	960	1245	832
60°	615	983	570
65°	397	750	386
70°	351	537	351
75°	453	427	456
80°	554	367	581
85°	645	546	678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.7	4.7
10°-20°	599.2	13.6
20°-30°	902.1	20.5
30°-40°	1045.6	23.7
40°-50°	816.8	18.5
50°-60°	436.2	9.9
60°-70°	224.3	5.1
70°-80°	126.9	2.9
80°-90°	48.2	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°	1710.1	38.8
0°-40°	2755.7	62.5
0°-60°	4008.7	90.9
0°-90°	4408.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4408.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2180	2180	2180	2180	2180	
5°	2176	2237	2162	2221	2238	207
15°	2119	2132	2112	2125	2120	598
25°	1959	1952	1960	1957	1979	903
35°	1692	1684	1671	1705	1722	1055
45°	1137	1138	1029	1019	976	857
55°	409	518	531	478	355	378
65°	125	260	236	259	121	137
75°	87	164	82	153	88	88
85°	42	54	35	54	44	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2179.6	2179.6	2179.6	2179.6	2179.6
2.5°	2186.7	2226.4	2241.9	2222.8	2231.3
5°	2176.1	2237.0	2161.9	2221.4	2238.4
7.5°	2166.2	2159.8	2214.3	2157.7	2181.8
10°	2147.8	2152.0	2141.4	2181.8	2167.6
12.5°	2139.3	2164.1	2161.9	2141.4	2172.6
15°	2118.8	2132.2	2111.7	2125.1	2120.2
17.5°	2098.2	2091.8	2089.7	2095.4	2100.3
20°	2062.8	2041.6	2054.3	2055.7	2071.3
22.5°	2011.9	1999.1	2001.9	2014.7	2016.1
25°	1958.8	1952.4	1960.2	1957.3	1979.3
27.5°	1903.5	1895.1	1900.0	1910.6	1924.1
30°	1840.5	1838.4	1834.9	1844.1	1864.6
32.5°	1778.2	1761.3	1758.4	1777.5	1800.9
35°	1691.9	1684.1	1671.4	1704.6	1721.6
37.5°	1609.8	1585.7	1565.2	1585.0	1592.1
40°	1485.9	1467.5	1419.3	1421.5	1411.6
42.5°	1333.7	1320.2	1228.2	1211.9	1184.3
45°	1136.9	1137.6	1028.6	1019.4	975.5
47.5°	908.2	948.6	853.7	843.1	778.0
50°	695.2	768.1	709.3	692.3	606.0
52.5°	521.7	628.6	610.2	573.4	454.5
55°	409.2	517.5	530.9	478.5	354.7
57.5°	307.9	426.2	448.1	404.9	274.0
60°	228.7	358.9	365.3	348.3	211.7
62.5°	169.9	305.1	296.6	298.7	157.2
65°	124.6	259.8	235.7	259.1	121.1
67.5°	101.9	225.1	183.3	224.4	98.4
70°	89.2	199.6	136.6	197.5	89.2
72.5°	86.4	183.3	108.3	175.6	87.1
75°	87.1	163.5	82.1	152.9	87.8
77.5°	80.0	134.5	62.3	130.3	83.5
80°	71.5	101.9	47.4	103.4	75.0
82.5°	60.9	74.3	38.2	76.5	63.0
85°	41.8	54.5	35.4	54.5	43.9
87.5°	19.8	32.6	21.9	31.1	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)