

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: P291472

Luminaire Tested: **14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291472
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3962.0 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

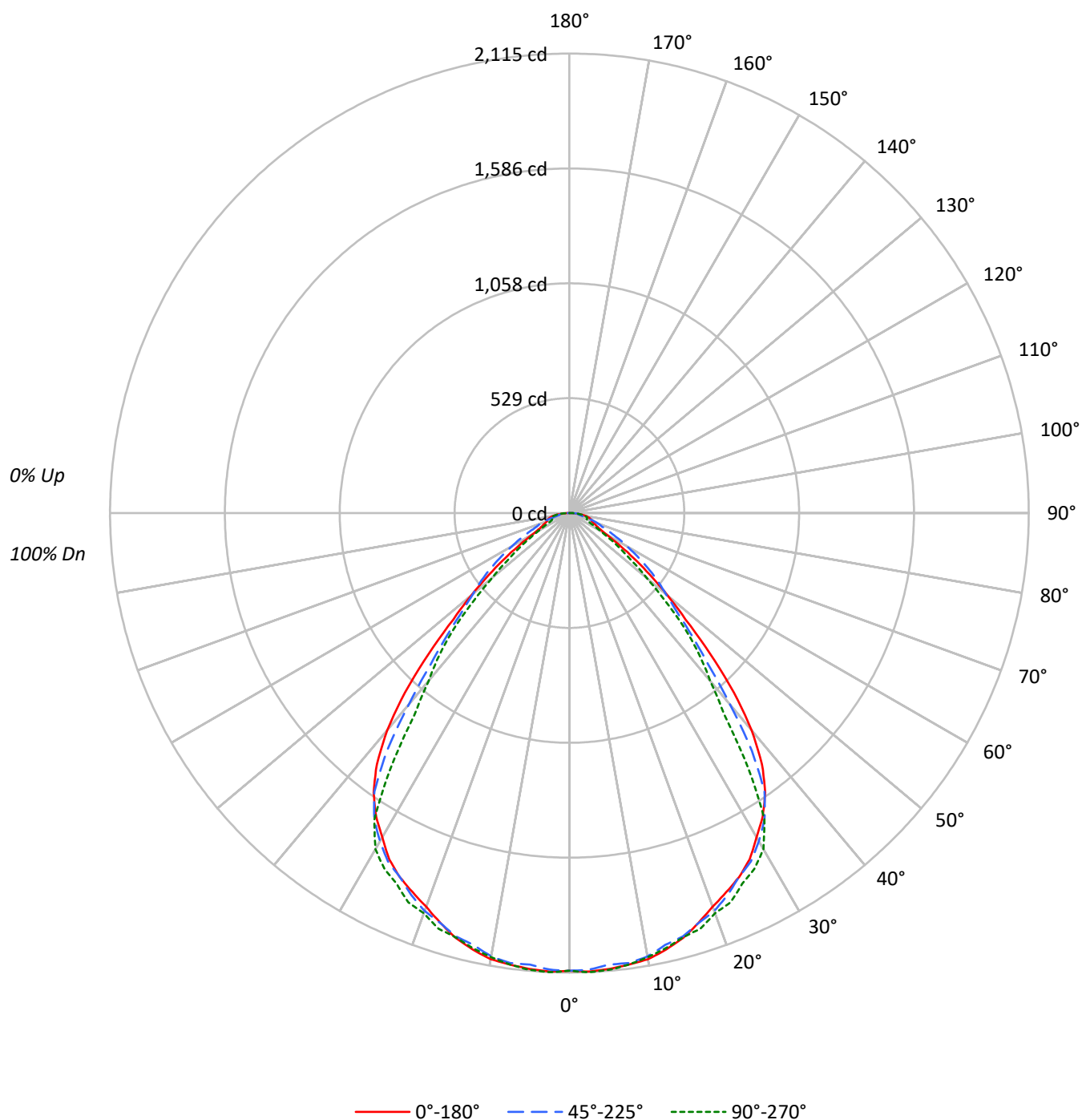
Input Watts (W): 38.13
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P291472

CATALOG NUMBER: 14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P291472

CATALOG NUMBER: 14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	104	100	108	105	102	99	101	98	96		97	95	93		93
2	103	96	90	86	100	94	89	85	91	87	83		88	84	81		85
3	95	87	80	74	93	85	79	74	82	77	73		80	75	71		77
4	89	79	71	65	87	77	70	65	75	69	64		73	68	63		71
5	83	71	64	58	81	70	63	58	68	62	57		67	61	57		65
6	77	65	58	52	75	64	57	52	63	56	51		61	55	51		60
7	72	60	52	47	70	59	52	47	58	51	46		56	51	46		55
8	67	55	48	43	66	55	47	42	53	47	42		52	46	42		51
9	63	51	44	39	62	51	44	39	50	43	39		49	43	38		48
10	60	48	40	36	58	47	40	36	46	40	35		45	39	35		44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5669	5669	5669
5°	5689	5635	5701
10°	5698	5663	5673
15°	5640	5619	5632
20°	5522	5581	5613
25°	5488	5486	5590
30°	5354	5419	5552
35°	5163	5142	4725
40°	4585	4046	3543
45°	3479	3027	2865
50°	2468	2422	1944
55°	1689	2068	1336
60°	1045	1650	893
65°	860	1270	647
70°	856	1106	663
75°	1028	792	887
80°	1181	731	1110
85°	1121	1288	1260



TEST NUMBER: P291472

CATALOG NUMBER: 14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.9	5.0
10°-20°	570.6	14.4
20°-30°	858.0	21.7
30°-40°	935.4	23.6
40°-50°	655.0	16.5
50°-60°	370.7	9.4
60°-70°	202.8	5.1
70°-80°	122.9	3.1
80°-90°	46.6	1.2
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°	1628.5	41.1
0°-40°	2563.9	64.7
0°-60°	3589.6	90.6
0°-90°	3962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3962.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2107	2107	2107	2107	2107	
5°	2106	2102	2086	2110	2110	200
15°	2024	2019	2017	2046	2022	569
25°	1848	1852	1848	1890	1883	849
35°	1572	1564	1565	1486	1438	968
45°	914	954	795	785	753	710
55°	360	431	441	437	285	329
65°	135	222	200	252	102	139
75°	99	142	76	150	85	103
85°	36	59	42	51	41	40
90°	0	0	0	0	0	



TEST NUMBER: P291472

CATALOG NUMBER: 14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2106.8	2106.8	2106.8	2106.8	2106.8
2.5°	2112.3	2109.6	2103.2	2115.9	2115.0
5°	2105.9	2102.3	2086.0	2110.5	2110.5
7.5°	2096.9	2087.8	2088.7	2102.3	2096.0
10°	2085.1	2069.7	2072.4	2076.0	2076.0
12.5°	2057.9	2043.4	2036.1	2047.9	2051.5
15°	2024.3	2018.9	2017.0	2046.1	2021.6
17.5°	1977.1	1988.9	1978.1	2001.6	2005.3
20°	1928.2	1950.8	1949.0	1965.4	1959.9
22.5°	1888.3	1902.8	1902.8	1922.7	1939.1
25°	1848.4	1852.0	1847.5	1890.1	1882.8
27.5°	1796.7	1793.9	1808.5	1830.2	1844.7
30°	1723.2	1724.1	1744.1	1773.1	1786.7
32.5°	1656.1	1647.9	1672.4	1685.1	1670.6
35°	1571.7	1564.5	1565.4	1485.6	1438.4
37.5°	1456.6	1462.9	1379.5	1233.4	1171.8
40°	1305.1	1317.8	1151.8	1043.0	1008.5
42.5°	1121.9	1125.5	944.1	908.8	886.1
45°	914.2	954.1	795.4	785.4	752.8
47.5°	724.7	799.0	666.6	673.0	595.0
50°	589.5	663.9	578.6	581.4	464.4
52.5°	466.2	538.7	510.6	502.4	364.6
55°	360.1	430.8	440.8	437.1	284.8
57.5°	264.8	341.0	370.0	383.6	219.5
60°	194.1	278.4	306.5	333.8	166.0
62.5°	154.2	241.2	251.2	291.1	128.8
65°	135.1	222.2	199.5	252.1	101.6
67.5°	120.6	211.3	162.3	223.1	88.9
70°	108.8	190.5	140.6	199.5	84.3
72.5°	108.8	166.9	110.6	176.9	85.3
75°	98.9	142.4	76.2	149.6	85.3
77.5°	88.0	121.5	57.1	121.5	79.8
80°	76.2	95.2	47.2	93.4	71.6
82.5°	56.2	71.6	40.8	69.8	58.0
85°	36.3	59.0	41.7	50.8	40.8
87.5°	17.2	29.9	26.3	25.4	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)