

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: P291471

Luminaire Tested: **14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291471
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-4000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3894.0 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

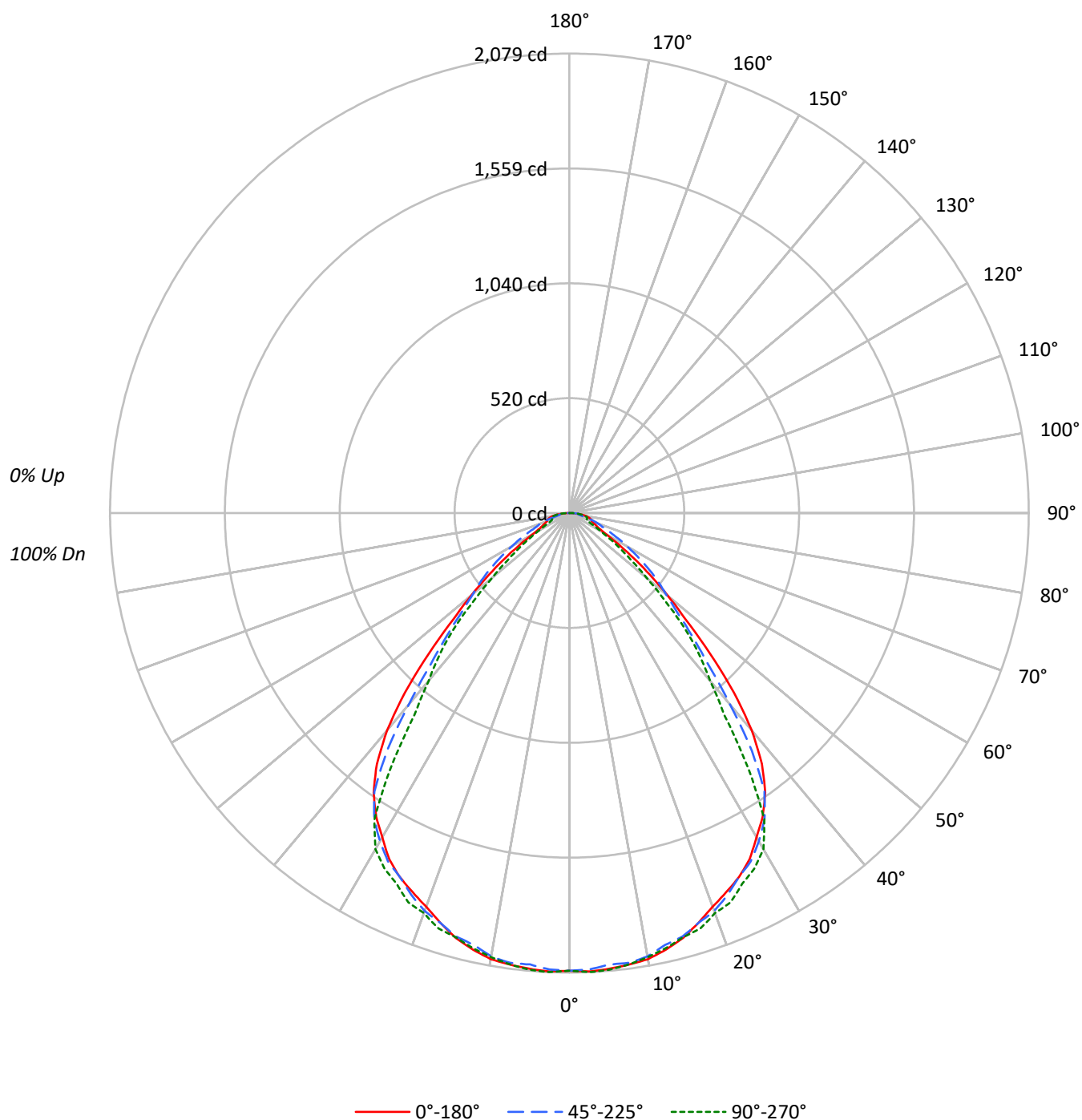
Input Watts (W): 37.479
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20				
RC	80				70					50					30				0
RW	70	50	30	10	70	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		100
1	111	107	104	100	108	105	102	99		101	98	96			97	95	93		88
2	103	96	90	86	100	94	89	85		91	87	83			88	84	81		77
3	95	87	80	74	93	85	79	74		82	77	73			80	75	71		68
4	89	79	71	65	87	77	70	65		75	69	64			73	68	63		61
5	83	71	64	58	81	70	63	58		68	62	57			67	61	57		54
6	77	65	58	52	75	64	57	52		63	56	51			61	55	51		49
7	72	60	52	47	70	59	52	47		58	51	46			56	51	46		44
8	67	55	48	43	66	55	47	42		53	47	42			52	46	42		40
9	63	51	44	39	62	51	44	39		50	43	39			49	43	38		37
10	60	48	40	36	58	47	40	36		46	40	35			45	39	35		34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5572	5572	5572
5°	5591	5538	5603
10°	5600	5566	5575
15°	5543	5523	5535
20°	5427	5486	5516
25°	5394	5391	5494
30°	5262	5326	5456
35°	5075	5054	4644
40°	4506	3977	3482
45°	3419	2975	2815
50°	2426	2381	1911
55°	1660	2032	1313
60°	1027	1622	878
65°	846	1249	635
70°	842	1087	652
75°	1011	779	871
80°	1161	719	1091
85°	1102	1266	1238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.5	5.0
10°-20°	560.8	14.4
20°-30°	843.3	21.7
30°-40°	919.3	23.6
40°-50°	643.7	16.5
50°-60°	364.4	9.4
60°-70°	199.4	5.1
70°-80°	120.8	3.1
80°-90°	45.8	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°	1600.5	41.1
0°-40°	2519.9	64.7
0°-60°	3528.0	90.6
0°-90°	3894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3894.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2071	2071	2071	2071	2071	
5°	2070	2066	2050	2074	2074	197
15°	1990	1984	1982	2011	1987	560
25°	1817	1820	1816	1858	1850	834
35°	1545	1538	1538	1460	1414	952
45°	898	938	782	772	740	698
55°	354	423	433	430	280	324
65°	133	218	196	248	100	136
75°	97	140	75	147	84	101
85°	36	58	41	50	40	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2070.7	2070.7	2070.7	2070.7	2070.7
2.5°	2076.0	2073.4	2067.1	2079.6	2078.7
5°	2069.8	2066.2	2050.2	2074.2	2074.2
7.5°	2060.9	2052.0	2052.9	2066.2	2060.0
10°	2049.3	2034.1	2036.8	2040.4	2040.4
12.5°	2022.5	2008.3	2001.1	2012.7	2016.3
15°	1989.6	1984.2	1982.4	2011.0	1986.9
17.5°	1943.2	1954.8	1944.1	1967.3	1970.8
20°	1895.1	1917.4	1915.6	1931.6	1926.3
22.5°	1855.9	1870.1	1870.1	1889.7	1905.8
25°	1816.6	1820.2	1815.7	1857.6	1850.5
27.5°	1765.8	1763.2	1777.4	1798.8	1813.1
30°	1693.6	1694.5	1714.1	1742.6	1756.0
32.5°	1627.7	1619.6	1643.7	1656.2	1641.9
35°	1544.8	1537.6	1538.5	1460.1	1413.7
37.5°	1431.6	1437.8	1355.8	1212.3	1151.7
40°	1282.7	1295.2	1132.1	1025.1	991.2
42.5°	1102.6	1106.2	927.9	893.2	870.9
45°	898.5	937.7	781.7	771.9	739.8
47.5°	712.2	785.3	655.2	661.4	584.7
50°	579.4	652.5	568.7	571.4	456.4
52.5°	458.2	529.5	501.8	493.8	358.3
55°	353.9	423.4	433.2	429.6	279.9
57.5°	260.3	335.2	363.7	377.1	215.7
60°	190.8	273.7	301.3	328.0	163.1
62.5°	151.5	237.1	246.9	286.1	126.6
65°	132.8	218.4	196.1	247.8	99.8
67.5°	118.6	207.7	159.6	219.3	87.4
70°	107.0	187.2	138.2	196.1	82.9
72.5°	107.0	164.0	108.7	173.8	83.8
75°	97.2	139.9	74.9	147.1	83.8
77.5°	86.5	119.4	56.2	119.4	78.4
80°	74.9	93.6	46.4	91.8	70.4
82.5°	55.3	70.4	40.1	68.6	57.0
85°	35.7	57.9	41.0	49.9	40.1
87.5°	16.9	29.4	25.9	25.0	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)