

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: P291461

Luminaire Tested: **14GR-LD5-36-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291461
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-LD5-36-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: 3262.0 lumens
Efficiency: N/A
Efficacy: 108.6 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

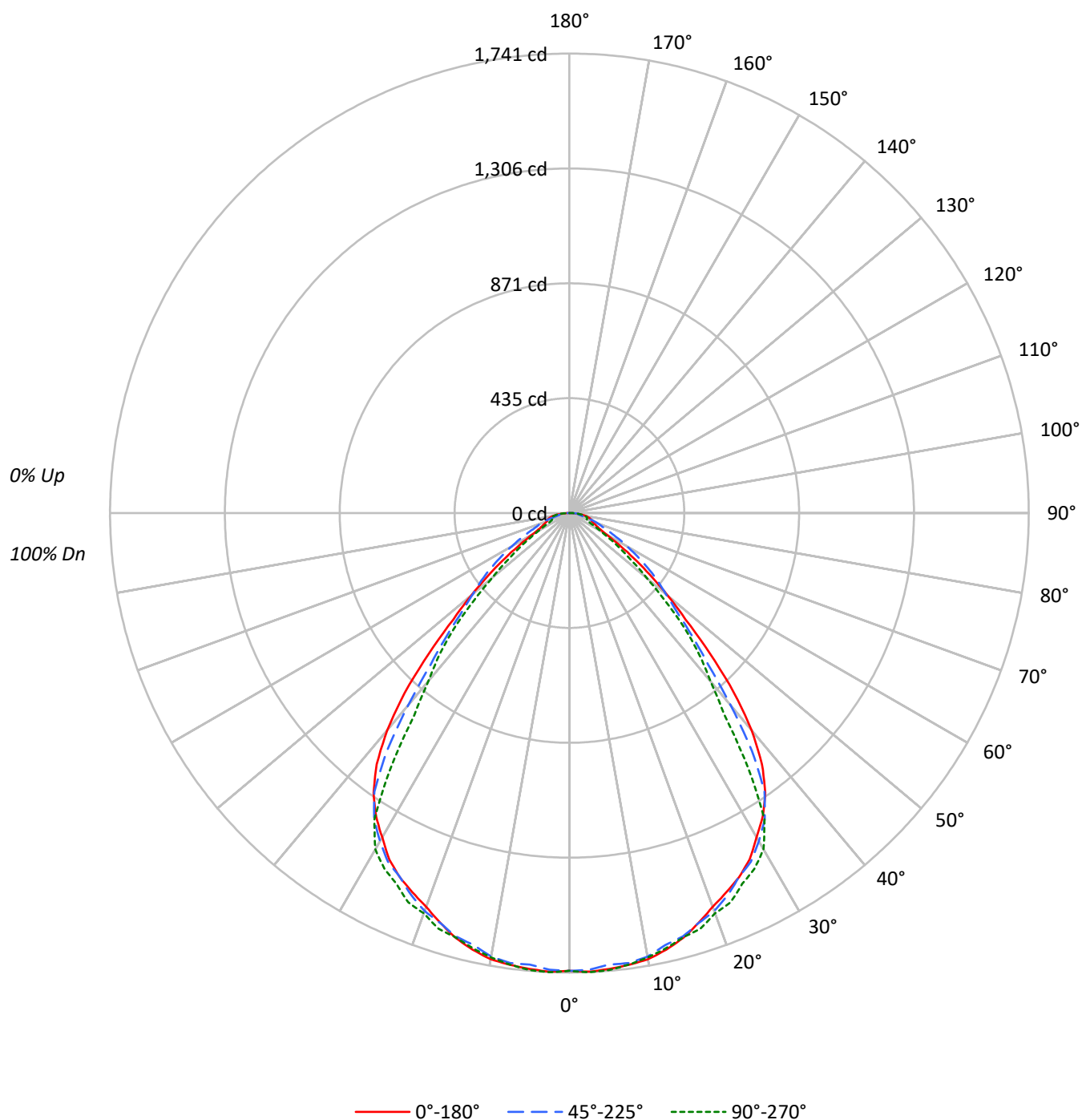
Input Watts (W): 30.039
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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°	4668	4668	4668
5°	4684	4639	4694
10°	4691	4662	4670
15°	4643	4627	4637
20°	4546	4595	4621
25°	4518	4516	4603
30°	4408	4462	4571
35°	4251	4234	3891
40°	3775	3331	2917
45°	2864	2492	2359
50°	2032	1994	1600
55°	1391	1703	1100
60°	860	1358	735
65°	709	1046	532
70°	705	910	546
75°	846	652	730
80°	972	601	914
85°	923	1059	1037



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.6	5.0
10°-20°	469.8	14.4
20°-30°	706.4	21.7
30°-40°	770.1	23.6
40°-50°	539.2	16.5
50°-60°	305.2	9.4
60°-70°	167.0	5.1
70°-80°	101.2	3.1
80°-90°	38.4	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°	1340.8	41.1
0°-40°	2110.9	64.7
0°-60°	2955.4	90.6
0°-90°	3262.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3262.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1735	1735	1735	1735	1735	
5°	1734	1731	1717	1738	1738	165
15°	1667	1662	1661	1685	1664	469
25°	1522	1525	1521	1556	1550	699
35°	1294	1288	1289	1223	1184	797
45°	753	786	655	647	620	585
55°	296	355	363	360	234	271
65°	111	183	164	208	84	114
75°	81	117	63	123	70	84
85°	30	48	34	42	34	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1734.6	1734.6	1734.6	1734.6	1734.6
2.5°	1739.1	1736.8	1731.6	1742.1	1741.3
5°	1733.9	1730.9	1717.4	1737.6	1737.6
7.5°	1726.4	1718.9	1719.7	1730.9	1725.6
10°	1716.7	1704.0	1706.2	1709.2	1709.2
12.5°	1694.3	1682.3	1676.4	1686.1	1689.1
15°	1666.7	1662.2	1660.7	1684.6	1664.4
17.5°	1627.8	1637.5	1628.6	1648.0	1651.0
20°	1587.5	1606.2	1604.7	1618.1	1613.6
22.5°	1554.6	1566.6	1566.6	1583.0	1596.5
25°	1521.8	1524.8	1521.0	1556.1	1550.2
27.5°	1479.2	1477.0	1488.9	1506.9	1518.8
30°	1418.7	1419.5	1435.9	1459.8	1471.0
32.5°	1363.5	1356.8	1376.9	1387.4	1375.4
35°	1294.0	1288.1	1288.8	1223.1	1184.3
37.5°	1199.2	1204.4	1135.7	1015.5	964.7
40°	1074.5	1085.0	948.3	858.7	830.3
42.5°	923.7	926.7	777.3	748.2	729.5
45°	752.7	785.5	654.9	646.6	619.8
47.5°	596.6	657.9	548.8	554.1	489.8
50°	485.4	546.6	476.4	478.6	382.3
52.5°	383.8	443.5	420.4	413.7	300.2
55°	296.4	354.7	362.9	359.9	234.5
57.5°	218.0	280.8	304.7	315.9	180.7
60°	159.8	229.2	252.4	274.8	136.6
62.5°	126.9	198.6	206.8	239.7	106.0
65°	111.3	182.9	164.3	207.6	83.6
67.5°	99.3	174.0	133.7	183.7	73.2
70°	89.6	156.8	115.7	164.3	69.4
72.5°	89.6	137.4	91.1	145.6	70.2
75°	81.4	117.2	62.7	123.2	70.2
77.5°	72.4	100.1	47.0	100.1	65.7
80°	62.7	78.4	38.8	76.9	59.0
82.5°	46.3	59.0	33.6	57.5	47.8
85°	29.9	48.5	34.3	41.8	33.6
87.5°	14.2	24.6	21.7	20.9	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)