

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: P290689

Luminaire Tested: **14GR-LD5-43-F1-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290689  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-7)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-43-F1-UNV-L93050-W2A1-U-5000K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4075.0 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.15 / 1.23  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

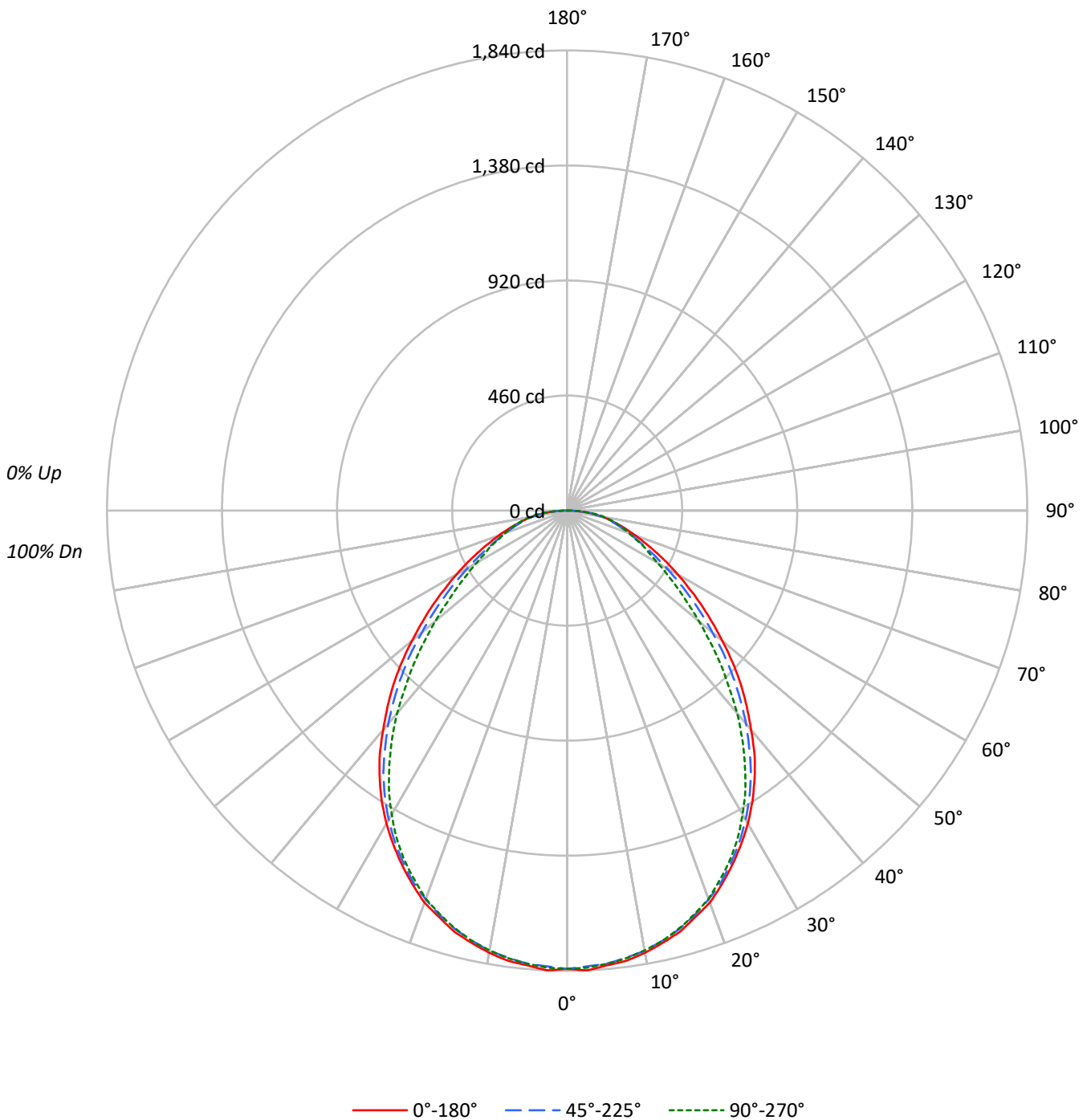
Input Watts (W): 38.13  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P290689

CATALOG NUMBER: 14GR-LD5-43-F1-UNV-L93050-W2A1-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P290689

CATALOG NUMBER: 14GR-LD5-43-F1-UNV-L93050-W2A1-U-5000K

**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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	64	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50	48
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4931	4931	4931
5°	4930	4913	4915
10°	4906	4883	4880
15°	4856	4827	4819
20°	4777	4737	4732
25°	4640	4609	4576
30°	4490	4435	4360
35°	4293	4210	4072
40°	4019	3908	3714
45°	3733	3565	3306
50°	3386	3175	2878
55°	3063	2805	2516
60°	2750	2458	2242
65°	2468	2195	2147
70°	2279	2043	2065
75°	2175	2049	2166
80°	2201	2185	2360
85°	2279	2251	2510



TEST NUMBER: P290689

CATALOG NUMBER: 14GR-LD5-43-F1-UNV-L93050-W2A1-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.0	4.2
10°-20°	489.1	12.0
20°-30°	714.3	17.5
30°-40°	795.9	19.5
40°-50°	717.1	17.6
50°-60°	536.1	13.2
60°-70°	353.6	8.7
70°-80°	215.9	5.3
80°-90°	80.1	2.0
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°	1376.4	33.8
0°-40°	2172.3	53.3
0°-60°	3425.5	84.1
0°-90°	4075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4075.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1833	1833	1833	1833	1833	
5°	1825	1823	1819	1828	1820	173
15°	1743	1736	1733	1743	1730	491
25°	1563	1557	1552	1555	1541	719
35°	1307	1296	1282	1259	1240	815
45°	981	970	937	894	869	755
55°	653	643	598	548	536	585
65°	388	376	345	331	337	389
75°	209	206	197	204	208	223
85°	74	71	73	80	81	79
90°	0	0	0	0	0	



TEST NUMBER: P290689

CATALOG NUMBER: 14GR-LD5-43-F1-UNV-L93050-W2A1-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1832.6	1832.6	1832.6	1832.6	1832.6
2.5°	1840.1	1831.7	1824.2	1835.4	1828.9
5°	1825.2	1823.3	1818.6	1828.0	1819.6
7.5°	1815.8	1809.3	1803.7	1814.9	1805.5
10°	1795.3	1791.5	1786.9	1796.2	1785.9
12.5°	1770.0	1766.3	1761.6	1772.9	1761.6
15°	1743.0	1736.4	1732.7	1743.0	1729.9
17.5°	1703.7	1700.9	1695.3	1705.6	1692.5
20°	1668.2	1658.0	1654.2	1661.7	1652.4
22.5°	1616.9	1609.4	1608.5	1613.1	1597.2
25°	1562.7	1557.1	1552.4	1555.2	1541.2
27.5°	1505.7	1498.2	1492.6	1491.7	1476.8
30°	1445.0	1435.7	1427.2	1419.8	1403.0
32.5°	1378.7	1367.5	1356.3	1344.1	1326.4
35°	1306.8	1295.5	1281.5	1259.1	1239.5
37.5°	1231.1	1218.0	1195.6	1169.4	1149.8
40°	1144.2	1137.7	1112.5	1078.8	1057.4
42.5°	1063.0	1055.5	1023.7	986.4	957.4
45°	980.8	970.5	936.9	893.9	868.7
47.5°	896.7	886.4	849.1	795.8	773.4
50°	808.9	803.3	758.5	709.9	687.5
52.5°	728.6	722.0	676.3	627.7	607.1
55°	652.9	642.6	597.8	548.3	536.2
57.5°	577.3	566.0	524.0	482.0	473.6
60°	510.9	496.9	456.8	424.1	416.6
62.5°	448.3	432.5	398.8	373.6	369.9
65°	387.6	375.5	344.7	330.7	337.2
67.5°	335.3	323.2	300.8	295.2	293.3
70°	289.6	278.4	259.7	261.5	262.5
72.5°	247.5	241.0	227.0	231.6	235.4
75°	209.2	205.5	197.1	203.6	208.3
77.5°	174.7	171.9	168.1	173.7	181.2
80°	142.0	140.1	141.0	144.8	152.3
82.5°	109.3	105.5	108.4	115.8	120.5
85°	73.8	71.0	72.9	80.3	81.3
87.5°	34.6	34.6	33.6	39.2	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)