

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: P293420

Luminaire Tested: **24GR-LD5-34-A-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293420  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-34-A-UNV-L83050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3709.0 lumens  
Efficiency: N/A  
Efficacy: 157.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

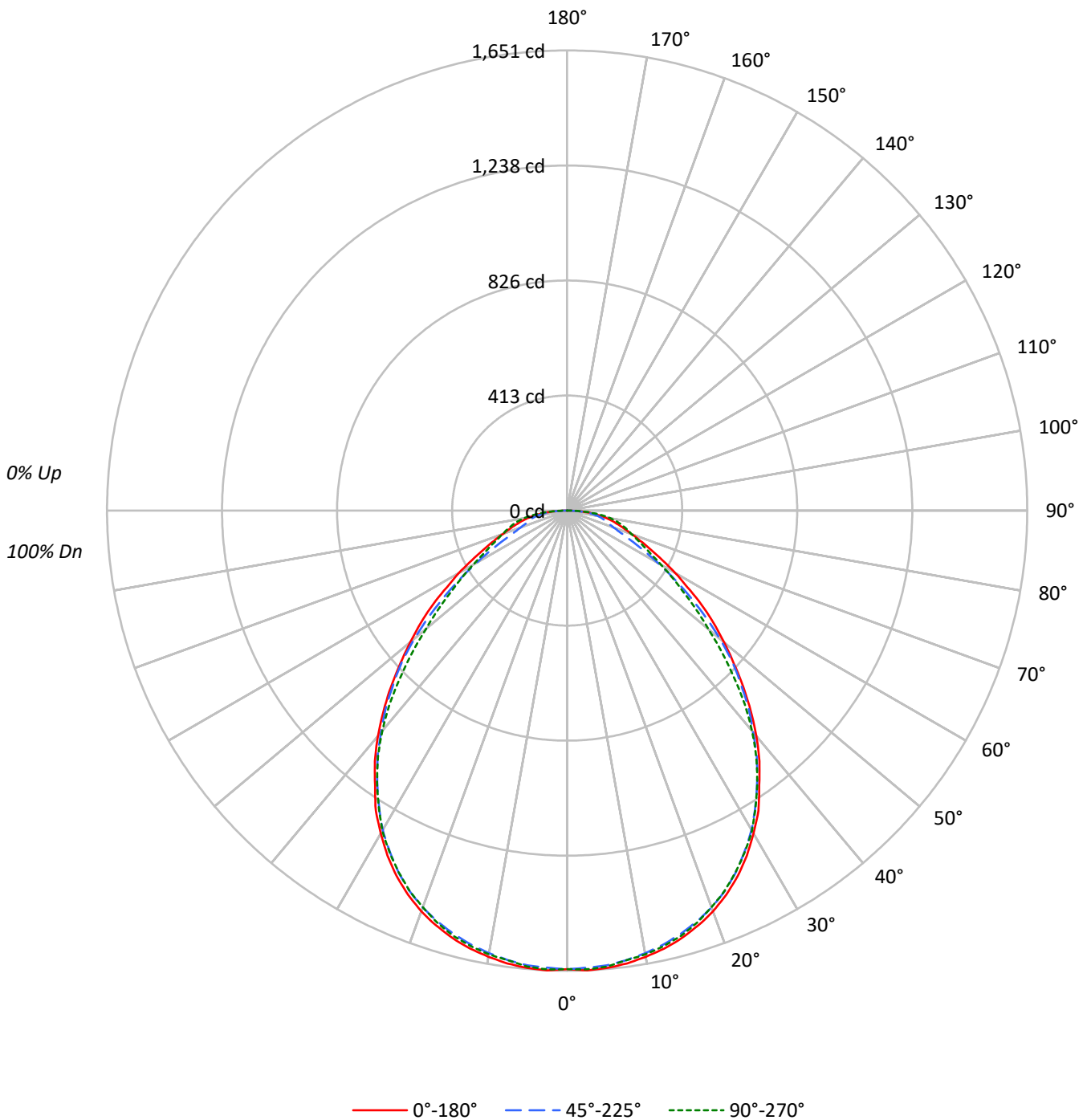
Input Watts (W): 23.529  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63
4	86	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29

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

	0°	45°	90°
0°	2214	2214	2214
5°	2225	2213	2218
10°	2221	2203	2209
15°	2212	2190	2200
20°	2191	2169	2168
25°	2149	2126	2124
30°	2078	2056	2061
35°	1974	1951	1954
40°	1856	1824	1813
45°	1701	1678	1611
50°	1538	1496	1383
55°	1380	1257	1192
60°	1209	1012	1048
65°	1054	795	965
70°	965	694	965
75°	965	739	1064
80°	1048	870	1212
85°	1150	982	1300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.8	4.2
10°-20°	444.7	12.0
20°-30°	659.4	17.8
30°-40°	743.9	20.1
40°-50°	673.8	18.2
50°-60°	486.1	13.1
60°-70°	290.2	7.8
70°-80°	179.4	4.8
80°-90°	75.6	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°	1260.0	34.0
0°-40°	2003.9	54.0
0°-60°	3163.8	85.3
0°-90°	3709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3709.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1646	1646	1646	1646	1646	
5°	1647	1645	1638	1636	1642	157
15°	1588	1579	1572	1573	1579	448
25°	1447	1439	1432	1427	1431	665
35°	1202	1200	1188	1188	1190	752
45°	894	888	882	860	847	689
55°	588	570	536	509	508	525
65°	331	292	250	284	303	333
75°	186	161	142	177	205	198
85°	74	65	64	83	84	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1645.6	1645.6	1645.6	1645.6	1645.6
2.5°	1651.4	1646.8	1641.1	1644.5	1647.4
5°	1647.4	1645.1	1638.2	1636.5	1642.2
7.5°	1638.8	1633.0	1626.7	1629.6	1627.3
10°	1625.6	1620.4	1612.4	1613.0	1617.0
12.5°	1609.5	1603.2	1594.6	1596.9	1600.4
15°	1588.3	1578.6	1572.3	1572.9	1579.2
17.5°	1561.4	1554.0	1545.9	1547.7	1550.5
20°	1530.5	1526.5	1515.0	1511.6	1514.4
22.5°	1491.5	1484.1	1477.8	1476.0	1476.6
25°	1447.4	1439.4	1431.9	1426.8	1430.8
27.5°	1395.8	1388.9	1379.2	1377.5	1380.9
30°	1337.4	1332.2	1323.6	1321.3	1326.5
32.5°	1277.8	1269.2	1257.1	1257.1	1258.3
35°	1201.6	1199.9	1187.8	1188.4	1189.5
37.5°	1132.8	1124.8	1117.9	1111.0	1114.5
40°	1056.6	1047.4	1038.3	1033.7	1032.0
42.5°	974.7	967.8	963.8	947.2	943.1
45°	893.9	888.1	881.8	860.1	846.9
47.5°	811.4	810.2	805.1	766.7	753.5
50°	734.6	732.9	714.5	673.8	660.7
52.5°	661.8	650.3	626.3	586.2	583.9
55°	588.5	570.1	535.7	509.4	508.2
57.5°	511.1	489.3	454.4	440.1	447.5
60°	449.2	416.0	375.9	377.6	389.6
62.5°	385.1	347.8	308.3	325.5	339.8
65°	331.2	291.7	249.8	283.6	303.1
67.5°	284.2	247.5	207.4	252.7	271.6
70°	245.2	215.4	176.5	224.0	245.2
72.5°	214.3	186.8	156.4	201.1	225.8
75°	185.7	161.0	142.1	177.1	204.6
77.5°	161.0	136.9	128.4	156.4	183.4
80°	135.2	113.5	112.3	136.4	156.4
82.5°	105.4	90.5	90.5	114.0	126.1
85°	74.5	65.3	63.6	83.1	84.2
87.5°	38.4	36.7	33.2	43.5	43.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)