

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: P293547

Luminaire Tested: **24GR-LD5-34-A-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293547  
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-L93050-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3299.0 lumens  
Efficiency: N/A  
Efficacy: 137.8 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

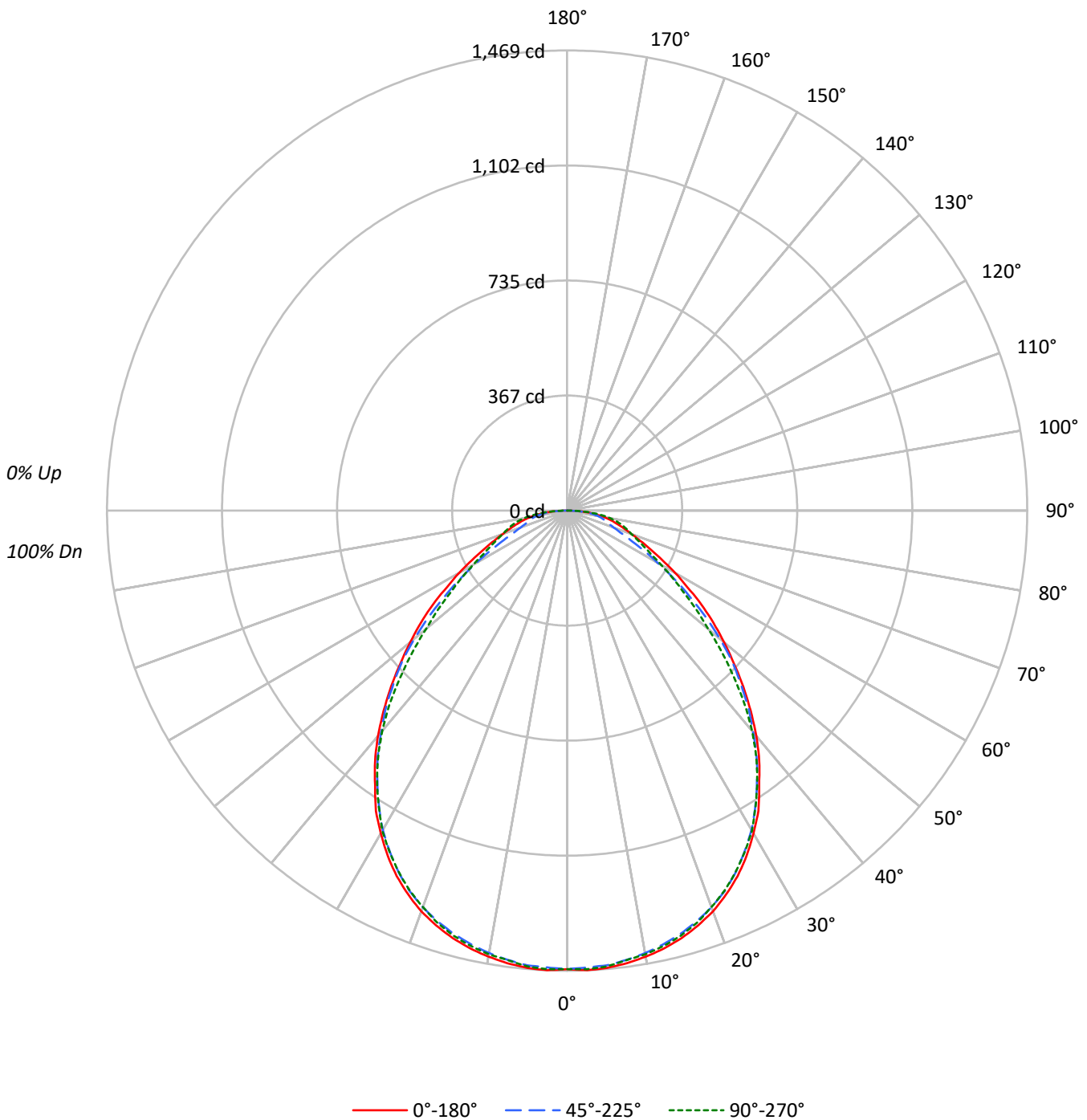
Input Watts (W): 23.935782  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	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°	1969	1969	1969
5°	1979	1968	1973
10°	1975	1959	1965
15°	1968	1948	1957
20°	1949	1929	1929
25°	1911	1891	1889
30°	1848	1829	1833
35°	1755	1735	1738
40°	1651	1622	1612
45°	1513	1493	1433
50°	1368	1330	1230
55°	1228	1118	1061
60°	1075	900	933
65°	938	707	858
70°	858	618	858
75°	858	657	946
80°	932	774	1078
85°	1024	874	1156



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.6	4.2
10°-20°	395.6	12.0
20°-30°	586.5	17.8
30°-40°	661.7	20.1
40°-50°	599.3	18.2
50°-60°	432.4	13.1
60°-70°	258.2	7.8
70°-80°	159.5	4.8
80°-90°	67.2	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°	1120.7	34.0
0°-40°	1782.4	54.0
0°-60°	2814.1	85.3
0°-90°	3299.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3299.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1465	1463	1457	1456	1461	139
15°	1413	1404	1398	1399	1405	398
25°	1287	1280	1274	1269	1273	591
35°	1069	1067	1056	1057	1058	669
45°	795	790	784	765	753	613
55°	523	507	476	453	452	467
65°	295	259	222	252	270	296
75°	165	143	126	158	182	176
85°	66	58	57	74	75	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1463.7	1463.7	1463.7	1463.7	1463.7
2.5°	1468.8	1464.7	1459.7	1462.7	1465.3
5°	1465.3	1463.2	1457.1	1455.6	1460.7
7.5°	1457.6	1452.5	1446.9	1449.5	1447.4
10°	1445.9	1441.3	1434.2	1434.7	1438.2
12.5°	1431.6	1426.0	1418.4	1420.4	1423.5
15°	1412.8	1404.1	1398.5	1399.0	1404.6
17.5°	1388.8	1382.2	1375.0	1376.6	1379.1
20°	1361.3	1357.7	1347.5	1344.5	1347.0
22.5°	1326.6	1320.0	1314.4	1312.9	1313.4
25°	1287.4	1280.3	1273.6	1269.0	1272.6
27.5°	1241.5	1235.4	1226.7	1225.2	1228.3
30°	1189.5	1184.9	1177.3	1175.3	1179.9
32.5°	1136.5	1128.9	1118.2	1118.2	1119.2
35°	1068.7	1067.2	1056.5	1057.0	1058.0
37.5°	1007.6	1000.5	994.3	988.2	991.3
40°	939.8	931.6	923.5	919.4	917.9
42.5°	866.9	860.8	857.2	842.5	838.9
45°	795.1	790.0	784.4	765.0	753.3
47.5°	721.7	720.7	716.1	681.9	670.2
50°	653.4	651.8	635.5	599.4	587.6
52.5°	588.7	578.5	557.1	521.4	519.3
55°	523.4	507.1	476.5	453.1	452.1
57.5°	454.6	435.2	404.2	391.4	398.0
60°	399.6	370.0	334.3	335.9	346.6
62.5°	342.5	309.4	274.2	289.5	302.2
65°	294.6	259.4	222.2	252.3	269.6
67.5°	252.8	220.2	184.5	224.8	241.6
70°	218.1	191.6	157.0	199.3	218.1
72.5°	190.6	166.1	139.1	178.9	200.8
75°	165.1	143.2	126.4	157.5	181.9
77.5°	143.2	121.8	114.2	139.1	163.1
80°	120.3	100.9	99.9	121.3	139.1
82.5°	93.8	80.5	80.5	101.4	112.1
85°	66.3	58.1	56.6	73.9	74.9
87.5°	34.1	32.6	29.6	38.7	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)