

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: P293066

Luminaire Tested: **24GR-LD5-64-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293066  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-64-F1-UNV-L93050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5439.0 lumens  
Efficiency: N/A  
Efficacy: 116.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

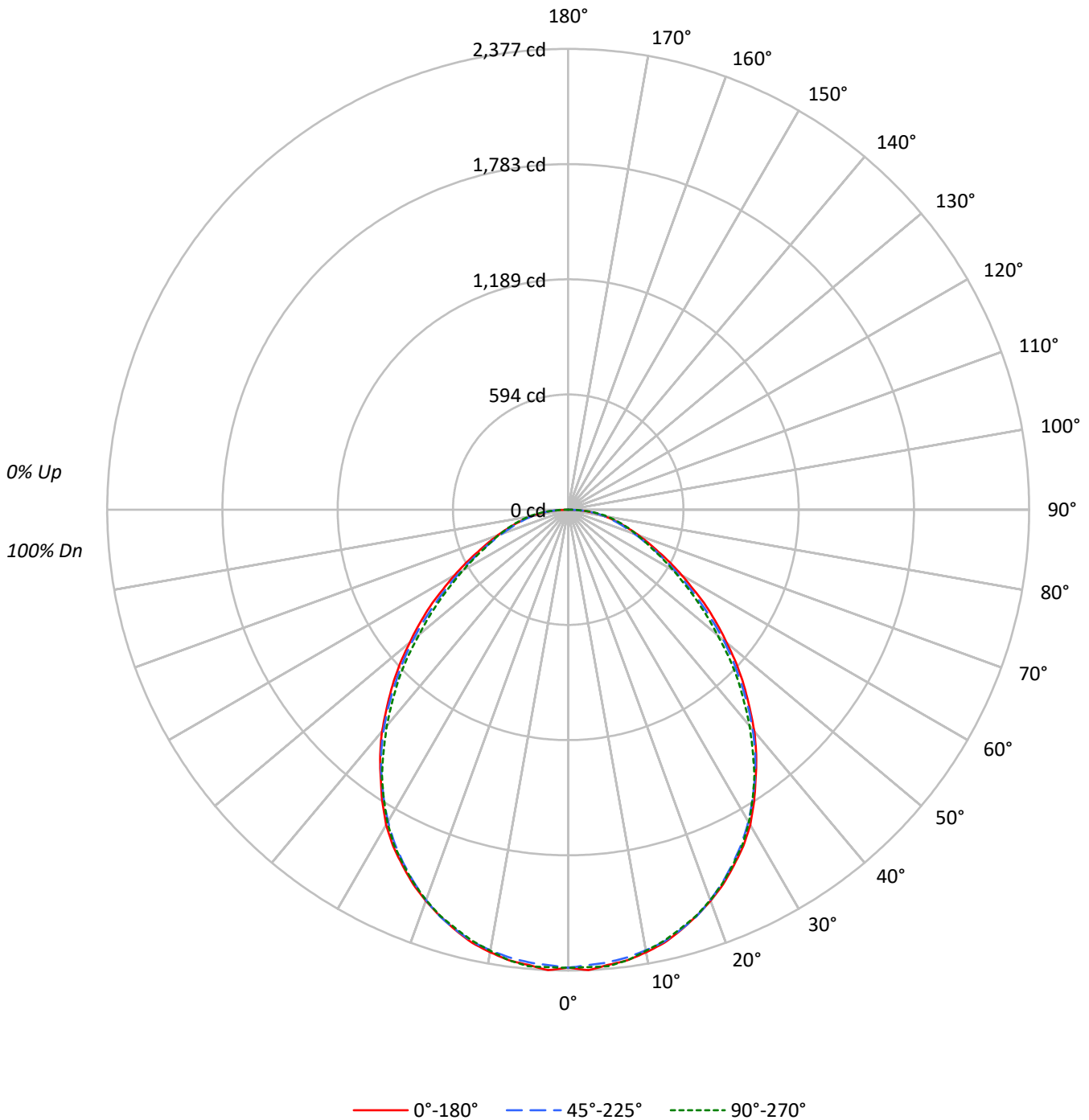
Input Watts (W): 46.814898  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

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

	0°	45°	90°
0°	3179	3179	3179
5°	3183	3165	3192
10°	3167	3153	3156
15°	3127	3124	3116
20°	3074	3068	3068
25°	3003	2986	2993
30°	2916	2886	2895
35°	2769	2757	2749
40°	2623	2599	2554
45°	2438	2395	2348
50°	2233	2184	2102
55°	2039	1947	1882
60°	1817	1730	1685
65°	1636	1550	1528
70°	1518	1426	1483
75°	1452	1388	1504
80°	1451	1451	1608
85°	1507	1524	1697



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	223.1	4.1
10°-20°	631.4	11.6
20°-30°	926.7	17.0
30°-40°	1047.7	19.3
40°-50°	968.3	17.8
50°-60°	746.0	13.7
60°-70°	494.0	9.1
70°-80°	294.1	5.4
80°-90°	107.7	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°	1781.2	32.7
0°-40°	2828.9	52.0
0°-60°	4543.2	83.5
0°-90°	5439.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5439.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2363	2363	2363	2363	2363	
5°	2357	2357	2344	2345	2364	224
15°	2245	2240	2242	2241	2237	633
25°	2023	2017	2011	2009	2016	931
35°	1686	1684	1678	1670	1674	1055
45°	1281	1272	1259	1236	1234	987
55°	869	852	830	808	802	775
65°	514	506	487	482	480	515
75°	279	273	267	279	289	298
85°	98	92	99	109	110	104
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2362.6	2362.6	2362.6	2362.6	2362.6
2.5°	2377.2	2364.8	2351.4	2351.4	2361.5
5°	2357.0	2357.0	2343.5	2344.6	2363.7
7.5°	2344.6	2337.9	2328.9	2328.9	2343.5
10°	2317.7	2312.1	2307.6	2305.4	2309.8
12.5°	2288.5	2279.6	2282.9	2279.6	2278.4
15°	2244.8	2240.3	2242.5	2241.4	2236.9
17.5°	2197.7	2195.4	2199.9	2192.1	2195.4
20°	2147.2	2140.5	2142.7	2138.2	2142.7
22.5°	2090.0	2085.5	2079.9	2074.3	2083.2
25°	2022.7	2017.0	2011.4	2009.2	2015.9
27.5°	1955.3	1946.4	1938.5	1936.3	1946.4
30°	1876.8	1866.7	1857.7	1855.5	1863.4
32.5°	1783.7	1781.5	1770.2	1765.8	1769.1
35°	1686.1	1683.9	1678.3	1670.4	1673.8
37.5°	1593.0	1591.9	1584.0	1570.6	1561.6
40°	1493.2	1485.3	1479.7	1460.6	1453.9
42.5°	1383.2	1381.0	1370.9	1349.6	1341.7
45°	1281.1	1272.2	1258.7	1236.3	1234.0
47.5°	1175.7	1163.3	1151.0	1123.0	1121.8
50°	1066.9	1057.9	1043.3	1015.3	1004.0
52.5°	965.9	953.6	933.4	906.4	900.8
55°	869.4	851.5	830.2	807.7	802.1
57.5°	766.2	758.4	732.6	714.6	707.9
60°	675.3	668.6	642.8	626.0	626.0
62.5°	593.4	583.4	560.9	549.7	549.7
65°	513.8	505.9	486.9	482.4	480.1
67.5°	445.4	435.3	421.8	420.7	426.3
70°	385.9	373.6	362.4	373.6	376.9
72.5°	329.8	322.0	311.9	326.5	333.2
75°	279.3	272.6	267.0	279.3	289.4
77.5°	233.3	226.6	226.6	240.1	249.0
80°	187.3	182.9	187.3	198.6	207.5
82.5°	143.6	140.2	145.8	157.1	162.7
85°	97.6	92.0	98.7	108.8	109.9
87.5°	46.0	44.9	49.4	56.1	55.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)