

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: P292991

Luminaire Tested: **24GR-LD5-48-F1-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292991  
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-LD5-48-F1-UNV-L82765-W2A1-U-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4578.0 lumens  
Efficiency: N/A  
Efficacy: 140.2 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

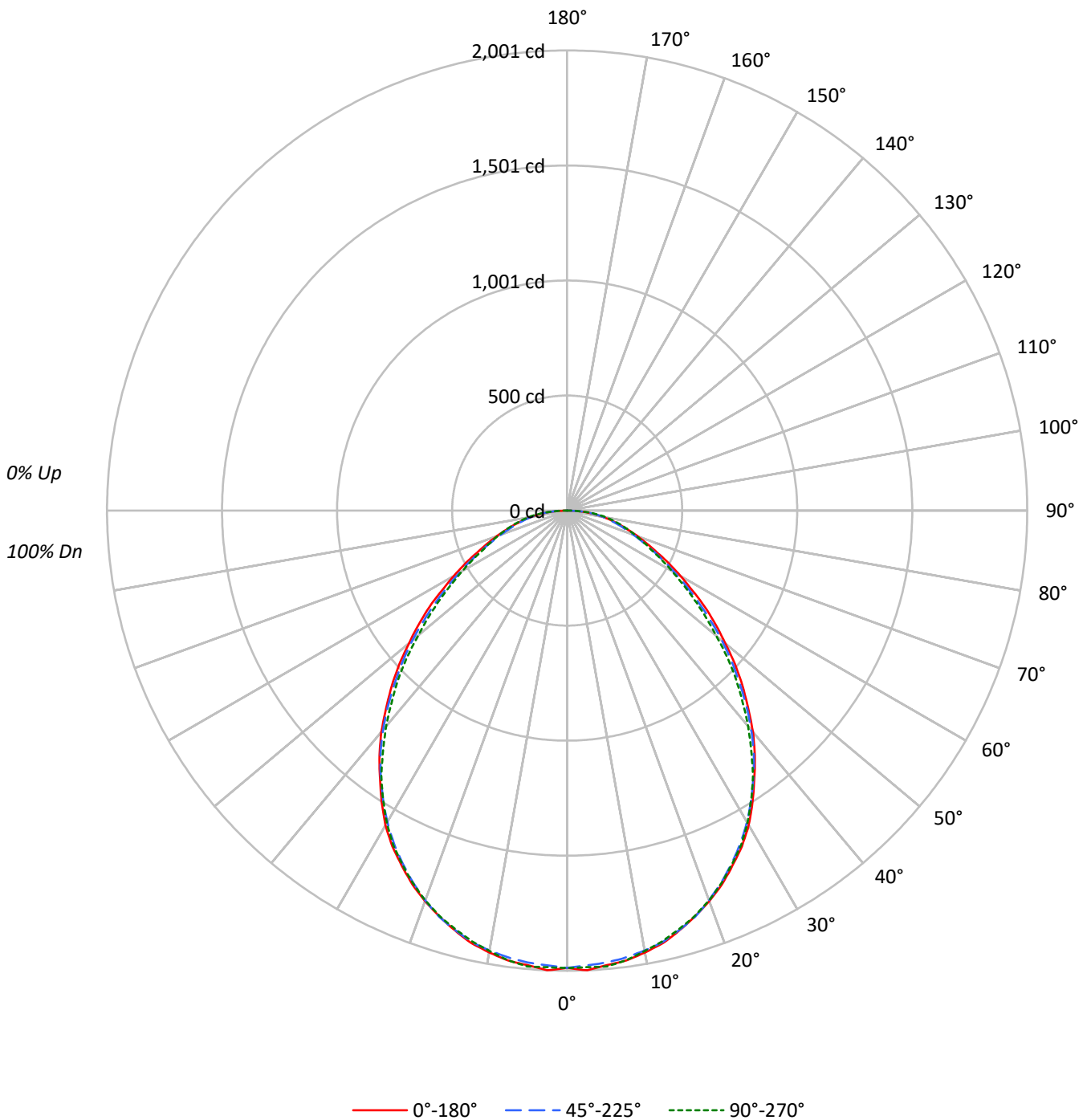
Input Watts (W): 32.643  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2676	2676	2676
5°	2680	2664	2687
10°	2665	2654	2656
15°	2632	2629	2623
20°	2588	2582	2582
25°	2528	2513	2519
30°	2454	2429	2437
35°	2331	2320	2314
40°	2207	2188	2149
45°	2052	2016	1976
50°	1880	1838	1769
55°	1717	1639	1584
60°	1530	1456	1418
65°	1377	1305	1287
70°	1278	1200	1248
75°	1222	1168	1266
80°	1222	1222	1354
85°	1267	1283	1428



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.8	4.1
10°-20°	531.5	11.6
20°-30°	780.0	17.0
30°-40°	881.8	19.3
40°-50°	815.0	17.8
50°-60°	627.9	13.7
60°-70°	415.8	9.1
70°-80°	247.5	5.4
80°-90°	90.7	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°	1499.3	32.7
0°-40°	2381.1	52.0
0°-60°	3824.0	83.5
0°-90°	4578.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4578.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1989	1989	1989	1989	1989	
5°	1984	1984	1972	1974	1990	189
15°	1889	1886	1888	1887	1883	533
25°	1702	1698	1693	1691	1697	784
35°	1419	1417	1413	1406	1409	888
45°	1078	1071	1059	1041	1039	831
55°	732	717	699	680	675	653
65°	432	426	410	406	404	434
75°	235	230	225	235	244	251
85°	82	77	83	92	92	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1988.6	1988.6	1988.6	1988.6	1988.6
2.5°	2000.8	1990.5	1979.1	1979.1	1987.6
5°	1983.9	1983.9	1972.5	1973.5	1989.5
7.5°	1973.5	1967.8	1960.2	1960.2	1972.5
10°	1950.8	1946.1	1942.3	1940.4	1944.2
12.5°	1926.3	1918.7	1921.5	1918.7	1917.8
15°	1889.4	1885.7	1887.5	1886.6	1882.8
17.5°	1849.8	1847.9	1851.7	1845.0	1847.9
20°	1807.3	1801.6	1803.5	1799.7	1803.5
22.5°	1759.1	1755.3	1750.6	1745.9	1753.5
25°	1702.5	1697.7	1693.0	1691.1	1696.8
27.5°	1645.8	1638.3	1631.7	1629.8	1638.3
30°	1579.7	1571.2	1563.7	1561.8	1568.4
32.5°	1501.3	1499.5	1490.0	1486.2	1489.1
35°	1419.2	1417.3	1412.6	1406.0	1408.8
37.5°	1340.8	1339.9	1333.3	1321.9	1314.4
40°	1256.8	1250.2	1245.5	1229.4	1223.7
42.5°	1164.3	1162.4	1153.9	1135.9	1129.3
45°	1078.3	1070.8	1059.4	1040.6	1038.7
47.5°	989.6	979.2	968.8	945.2	944.2
50°	898.0	890.4	878.1	854.5	845.1
52.5°	813.0	802.6	785.6	762.9	758.2
55°	731.8	716.7	698.7	679.9	675.1
57.5°	644.9	638.3	616.6	601.5	595.8
60°	568.4	562.8	541.1	526.9	526.9
62.5°	499.5	491.0	472.1	462.7	462.7
65°	432.5	425.9	409.8	406.0	404.1
67.5°	374.9	366.4	355.0	354.1	358.8
70°	324.8	314.4	305.0	314.4	317.3
72.5°	277.6	271.0	262.5	274.8	280.4
75°	235.1	229.5	224.7	235.1	243.6
77.5°	196.4	190.7	190.7	202.1	209.6
80°	157.7	153.9	157.7	167.1	174.7
82.5°	120.9	118.0	122.8	132.2	136.9
85°	82.1	77.4	83.1	91.6	92.5
87.5°	38.7	37.8	41.5	47.2	46.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)