

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: P475553

Luminaire Tested: **24GR-LD5-38-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475553  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-38-F1-UNV-L840-CD1-U  
Description: GR 2'X4' LED TROFFER w/ F1 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3885.3 lumens  
Efficiency: N/A  
Efficacy: 146.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

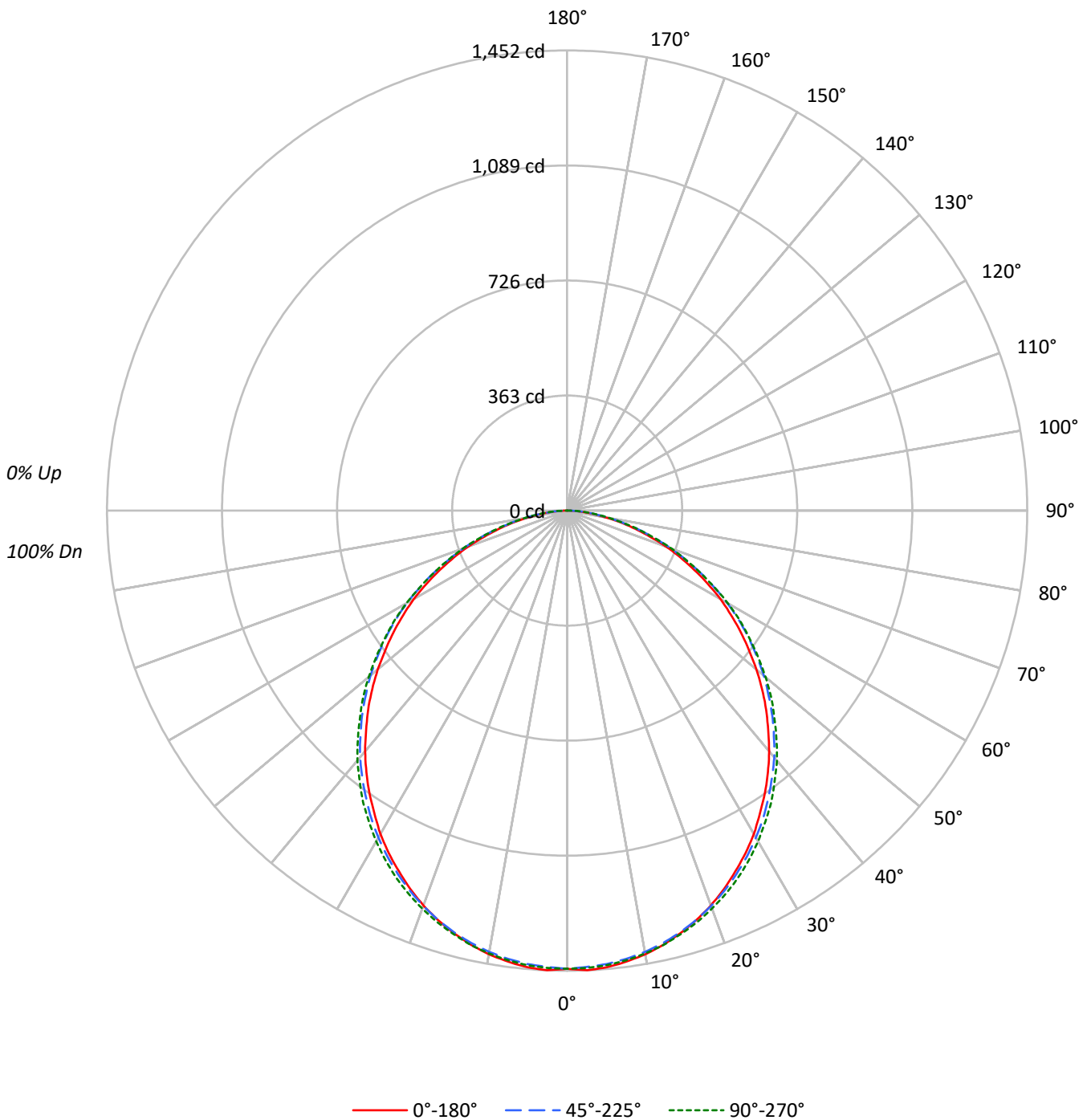
Input Watts (W): 26.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47		58	52	47		57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42		53	46	41		51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37		48	42	37		47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33		44	38	33		43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30		41	34	30		40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27		38	31	27		37	31	27	25

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

	0°	45°	90°
0°	1945	1945	1945
5°	1954	1940	1945
10°	1942	1932	1939
15°	1923	1919	1928
20°	1899	1901	1914
25°	1865	1878	1897
30°	1831	1851	1872
35°	1787	1817	1845
40°	1742	1786	1808
45°	1690	1742	1760
50°	1633	1696	1711
55°	1569	1638	1647
60°	1504	1571	1577
65°	1410	1476	1473
70°	1306	1365	1379
75°	1157	1224	1232
80°	962	1034	1057
85°	729	800	900



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.6	3.5
10°-20°	389.0	10.0
20°-30°	582.8	15.0
30°-40°	691.5	17.8
40°-50°	702.3	18.1
50°-60°	618.5	15.9
60°-70°	454.5	11.7
70°-80°	247.2	6.4
80°-90°	63.0	1.6
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°	1108.5	28.5
0°-40°	1800.0	46.3
0°-60°	3120.7	80.3
0°-90°	3885.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3885.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1446	1446	1446	1446	1446	
5°	1446	1440	1436	1436	1440	137
15°	1380	1378	1378	1380	1384	389
25°	1256	1258	1265	1272	1278	579
35°	1088	1094	1106	1118	1123	680
45°	888	895	915	926	925	685
55°	669	678	698	705	702	598
65°	443	450	464	467	463	439
75°	222	227	236	236	237	237
85°	47	48	52	56	58	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1445.7	1445.7	1445.7	1445.7	1445.7
2.5°	1451.8	1446.0	1441.1	1441.1	1444.5
5°	1446.4	1440.3	1436.1	1436.1	1439.9
7.5°	1435.4	1430.4	1427.0	1427.0	1431.2
10°	1421.7	1416.7	1414.0	1414.4	1419.0
12.5°	1403.4	1398.8	1397.6	1398.4	1404.1
15°	1380.5	1377.8	1377.8	1379.7	1383.9
17.5°	1355.0	1352.3	1354.2	1356.9	1362.2
20°	1326.0	1324.1	1327.5	1331.7	1336.7
22.5°	1292.9	1292.1	1297.8	1303.5	1308.5
25°	1256.3	1257.8	1264.7	1271.9	1277.6
27.5°	1218.6	1220.1	1229.6	1237.2	1242.9
30°	1178.6	1179.3	1191.5	1200.7	1204.8
32.5°	1132.1	1138.2	1151.1	1159.9	1163.7
35°	1088.2	1094.3	1106.5	1117.6	1123.3
37.5°	1040.6	1045.9	1062.0	1073.8	1075.7
40°	991.8	996.8	1016.6	1026.5	1029.6
42.5°	938.5	948.0	965.9	975.8	977.7
45°	888.2	895.4	915.3	925.9	924.8
47.5°	834.5	842.5	861.9	872.2	874.1
50°	780.0	789.1	810.1	816.9	817.3
52.5°	722.8	734.6	753.7	762.8	759.8
55°	668.7	678.2	698.4	704.9	702.3
57.5°	613.1	623.8	642.4	645.9	646.2
60°	559.0	567.7	583.8	587.2	586.0
62.5°	499.5	508.3	522.8	526.2	523.5
65°	442.8	450.0	463.7	467.2	462.6
67.5°	386.4	393.6	404.3	409.6	404.7
70°	331.9	337.6	347.1	350.2	350.6
72.5°	274.0	284.3	291.1	290.7	289.6
75°	222.5	227.1	235.5	236.2	237.0
77.5°	173.4	174.5	183.3	185.6	184.0
80°	124.2	128.4	133.4	136.0	136.4
82.5°	81.9	85.0	89.2	93.7	93.7
85°	47.2	48.4	51.8	56.4	58.3
87.5°	19.1	21.0	24.4	27.8	28.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)