

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: P476188

Luminaire Tested: **14GR-LD5-24-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021



Test Information

Test Method: LM-79-08
Report Number: P476188
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-24-F1-UNV-L840-CD1-U
Description: GR 1'X4' LED TROFFER w/ F1 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

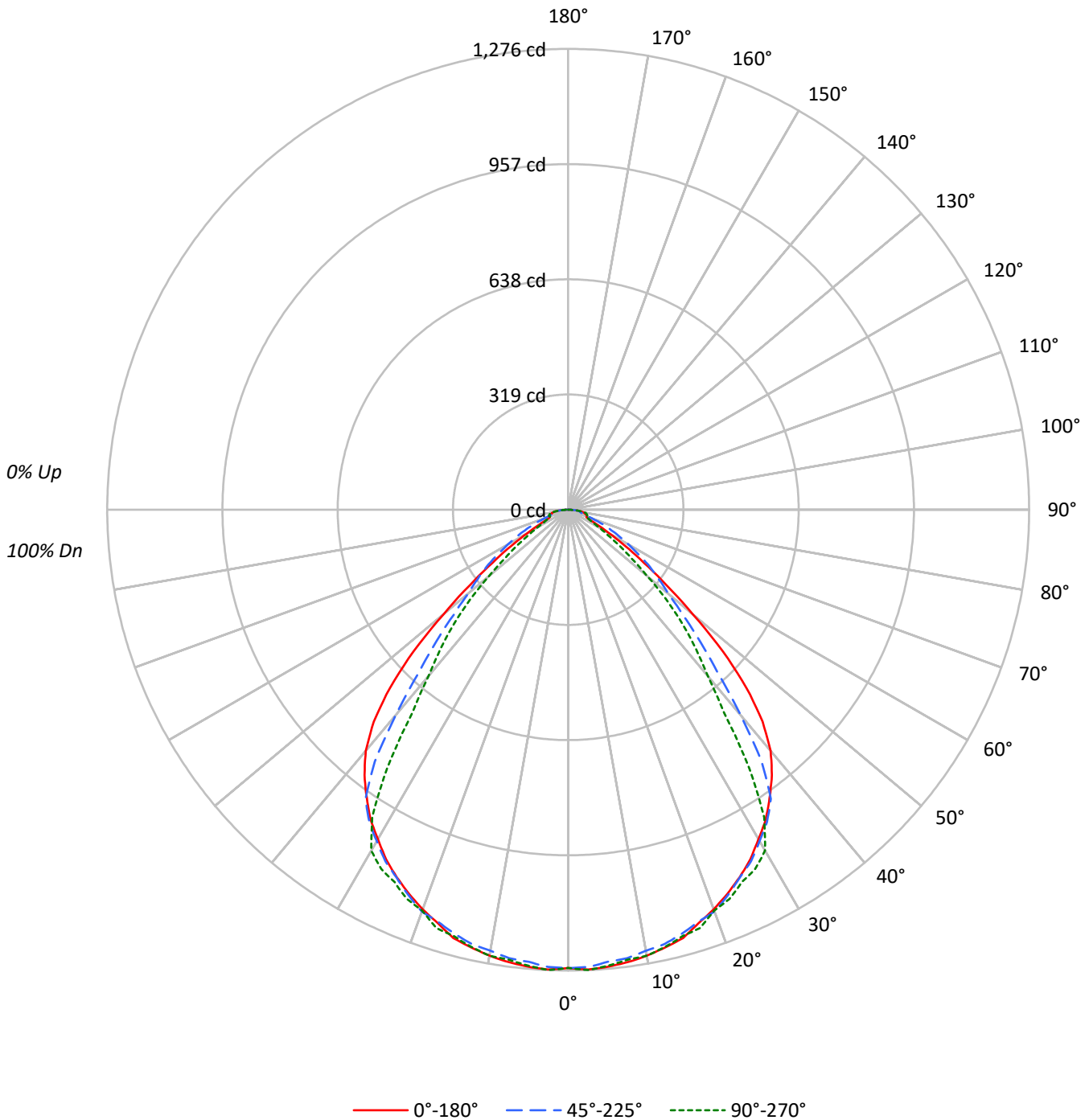
Lumens per Lamp: N/A
Luminaire Lumens: 2439.9 lumens
Efficiency: N/A
Efficacy: 131.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.2
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 18.5
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

TEST NUMBER: P476188

CATALOG NUMBER: 14GR-LD5-24-F1-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P476188

CATALOG NUMBER: 14GR-LD5-24-F1-UNV-L840-CD1-U

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	82	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	49
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	50	43	39	49	43	38	48	42	38	47	42	38	36
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3415	3415	3415
5°	3431	3394	3424
10°	3426	3389	3426
15°	3421	3387	3406
20°	3372	3391	3383
25°	3334	3338	3378
30°	3272	3293	3387
35°	3195	3213	2872
40°	3061	2605	2111
45°	2656	1965	1705
50°	1887	1510	1195
55°	1198	1294	801
60°	706	1037	529
65°	418	809	409
70°	430	548	419
75°	525	426	554
80°	677	528	741
85°	716	716	716



TEST NUMBER: P476188

CATALOG NUMBER: 14GR-LD5-24-F1-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	4.9
10°-20°	344.5	14.1
20°-30°	521.1	21.4
30°-40°	580.3	23.8
40°-50°	424.7	17.4
50°-60°	234.1	9.6
60°-70°	119.7	4.9
70°-80°	68.1	2.8
80°-90°	27.1	1.1
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°	985.9	40.4
0°-40°	1566.2	64.2
0°-60°	2225.0	91.2
0°-90°	2439.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2439.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1269	1269	1269	1269	1269	
5°	1270	1270	1257	1265	1268	121
15°	1228	1214	1216	1231	1222	345
25°	1123	1120	1124	1143	1138	517
35°	972	974	978	911	874	607
45°	698	643	516	470	448	525
55°	255	300	276	236	171	239
65°	66	156	127	122	64	75
75°	50	87	41	78	53	53
85°	23	29	23	31	23	25
90°	0	0	0	0	0	



TEST NUMBER: P476188

CATALOG NUMBER: 14GR-LD5-24-F1-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1268.9	1268.9	1268.9	1268.9	1268.9
2.5°	1274.4	1274.4	1267.5	1275.7	1275.7
5°	1270.3	1270.3	1256.6	1264.8	1267.5
7.5°	1263.5	1263.5	1252.5	1259.4	1256.6
10°	1253.9	1247.1	1240.2	1259.4	1253.9
12.5°	1241.6	1227.9	1232.0	1230.7	1240.2
15°	1227.9	1214.3	1215.6	1230.7	1222.5
17.5°	1200.6	1202.0	1196.5	1207.4	1214.3
20°	1177.4	1181.5	1184.2	1191.1	1181.5
22.5°	1151.4	1152.8	1155.5	1165.1	1166.5
25°	1122.8	1120.0	1124.1	1143.3	1137.8
27.5°	1091.3	1090.0	1096.8	1113.2	1121.4
30°	1053.1	1058.6	1059.9	1090.0	1090.0
32.5°	1017.6	1017.6	1024.4	1039.4	1009.4
35°	972.5	973.9	978.0	911.1	874.2
37.5°	926.1	922.0	879.6	758.1	708.9
40°	871.4	861.9	741.7	632.4	601.0
42.5°	796.3	767.6	611.9	546.4	523.1
45°	698.0	643.3	516.3	469.9	448.0
47.5°	580.5	530.0	428.9	397.5	367.4
50°	450.7	439.8	360.6	333.3	285.5
52.5°	342.8	364.7	316.9	281.4	219.9
55°	255.4	300.5	275.9	236.3	170.7
57.5°	187.1	250.0	232.2	200.8	128.4
60°	131.1	211.7	192.6	169.4	98.3
62.5°	92.9	183.0	158.4	144.8	75.1
65°	65.6	155.7	127.0	121.6	64.2
67.5°	54.6	131.1	97.0	107.9	54.6
70°	54.6	109.3	69.7	95.6	53.3
72.5°	54.6	95.6	51.9	87.4	56.0
75°	50.5	87.4	41.0	77.9	53.3
77.5°	46.4	73.8	35.5	66.9	51.9
80°	43.7	53.3	34.1	54.6	47.8
82.5°	35.5	38.2	31.4	42.3	36.9
85°	23.2	28.7	23.2	31.4	23.2
87.5°	10.9	15.0	10.9	13.7	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)