

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: P475560

Luminaire Tested: **24GR-LD5-90-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475560
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-90-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

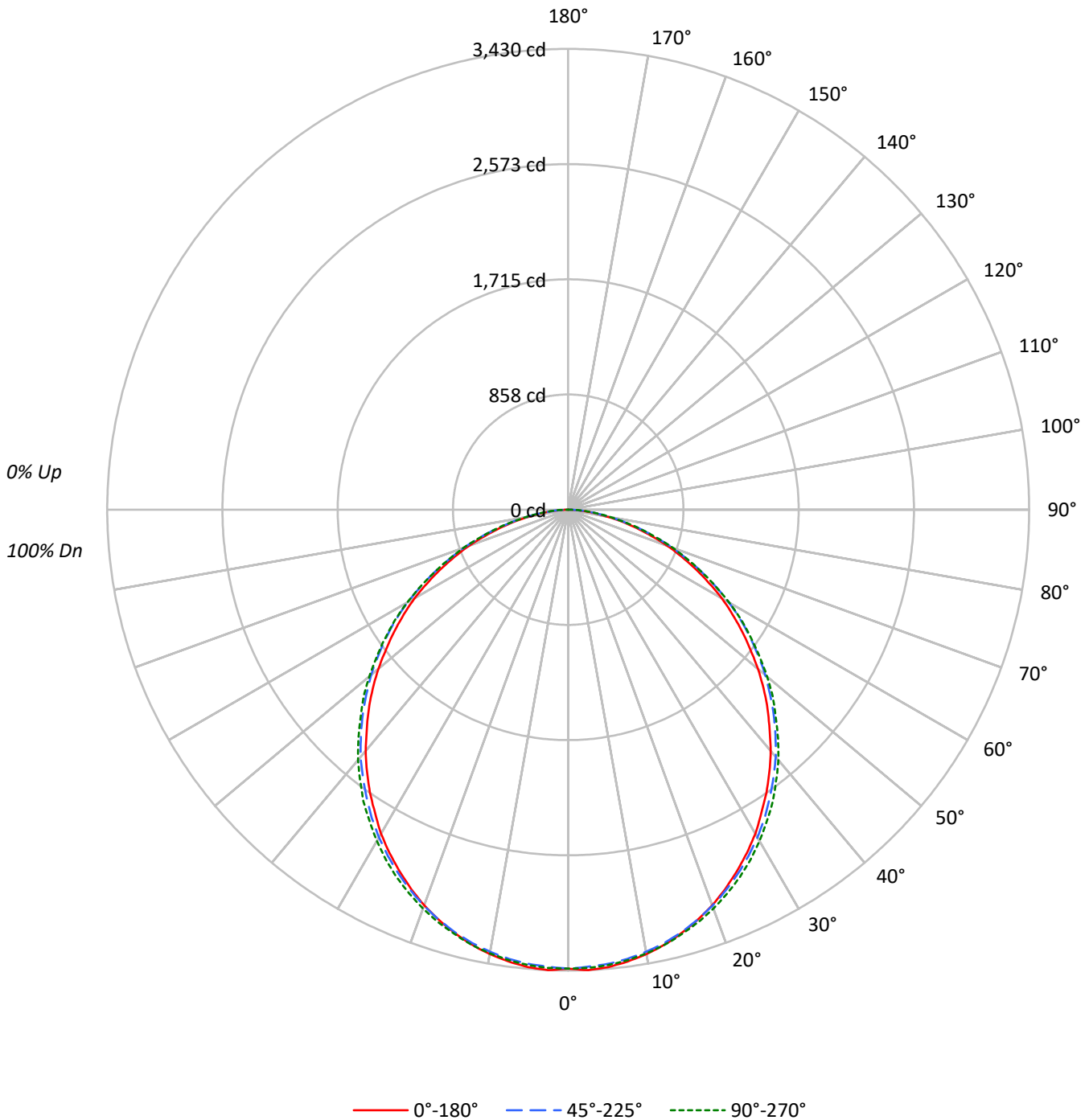
Lumens per Lamp: N/A
Luminaire Lumens: 9180.9 lumens
Efficiency: N/A
Efficacy: 150.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.2
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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4596	4596	4596
5°	4616	4583	4596
10°	4590	4565	4581
15°	4544	4535	4555
20°	4486	4492	4522
25°	4407	4437	4482
30°	4327	4374	4423
35°	4224	4295	4360
40°	4117	4219	4273
45°	3994	4115	4158
50°	3858	4007	4043
55°	3707	3871	3893
60°	3555	3712	3726
65°	3331	3489	3480
70°	3085	3227	3259
75°	2733	2892	2911
80°	2274	2442	2497
85°	1723	1891	2127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.8	3.5
10°-20°	919.2	10.0
20°-30°	1377.2	15.0
30°-40°	1634.0	17.8
40°-50°	1659.5	18.1
50°-60°	1461.4	15.9
60°-70°	1073.9	11.7
70°-80°	584.0	6.4
80°-90°	148.8	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°	2619.3	28.5
0°-40°	4253.3	46.3
0°-60°	7374.2	80.3
0°-90°	9180.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9180.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3416	3416	3416	3416	3416	
5°	3418	3403	3394	3394	3402	324
15°	3262	3256	3256	3260	3270	920
25°	2969	2972	2988	3006	3019	1368
35°	2572	2586	2615	2641	2654	1607
45°	2099	2116	2163	2188	2185	1618
55°	1580	1603	1650	1666	1659	1413
65°	1046	1063	1096	1104	1093	1037
75°	526	537	556	558	560	559
85°	112	114	122	133	138	135
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3416.0	3416.0	3416.0	3416.0	3416.0
2.5°	3430.5	3416.9	3405.2	3405.2	3413.3
5°	3417.8	3403.4	3393.5	3393.5	3402.5
7.5°	3391.7	3380.0	3371.9	3371.9	3381.8
10°	3359.3	3347.6	3341.3	3342.2	3353.0
12.5°	3316.1	3305.3	3302.6	3304.4	3317.9
15°	3262.1	3255.8	3255.8	3260.3	3270.2
17.5°	3201.8	3195.5	3200.0	3206.3	3218.9
20°	3133.3	3128.8	3136.9	3146.8	3158.5
22.5°	3055.0	3053.2	3066.7	3080.2	3091.9
25°	2968.6	2972.2	2988.4	3005.5	3019.0
27.5°	2879.4	2883.0	2905.5	2923.5	2937.0
30°	2784.9	2786.7	2815.5	2837.1	2847.0
32.5°	2675.0	2689.4	2720.1	2740.8	2749.8
35°	2571.5	2585.9	2614.7	2640.8	2654.3
37.5°	2458.9	2471.5	2509.4	2537.3	2541.8
40°	2343.7	2355.4	2402.2	2425.6	2432.8
42.5°	2217.6	2240.1	2282.5	2305.9	2310.4
45°	2098.8	2115.9	2162.7	2187.9	2185.2
47.5°	1971.8	1990.7	2036.7	2061.0	2065.5
50°	1843.1	1864.7	1914.2	1930.4	1931.3
52.5°	1708.0	1735.9	1781.0	1802.6	1795.4
55°	1580.2	1602.7	1650.4	1665.7	1659.4
57.5°	1448.7	1473.9	1518.0	1526.1	1527.0
60°	1320.9	1341.6	1379.4	1387.5	1384.8
62.5°	1180.4	1201.1	1235.3	1243.4	1237.1
65°	1046.2	1063.4	1095.8	1103.9	1093.1
67.5°	913.0	930.1	955.3	967.9	956.2
70°	784.2	797.7	820.2	827.5	828.4
72.5°	647.4	671.7	687.9	687.0	684.3
75°	525.8	536.6	556.4	558.2	560.0
77.5°	409.7	412.4	433.1	438.5	434.9
80°	293.5	303.4	315.1	321.4	322.3
82.5°	193.6	200.8	210.7	221.5	221.5
85°	111.6	114.3	122.5	133.3	137.8
87.5°	45.0	49.5	57.6	65.7	66.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)