

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: P475886

Luminaire Tested: **22GR-LD5-40-F1-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475886  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-40-F1-UNV-L830-CD1-U  
Description: GR 2'X2' LED TROFFER w/ F1 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3966.8 lumens  
Efficiency: N/A  
Efficacy: 122.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

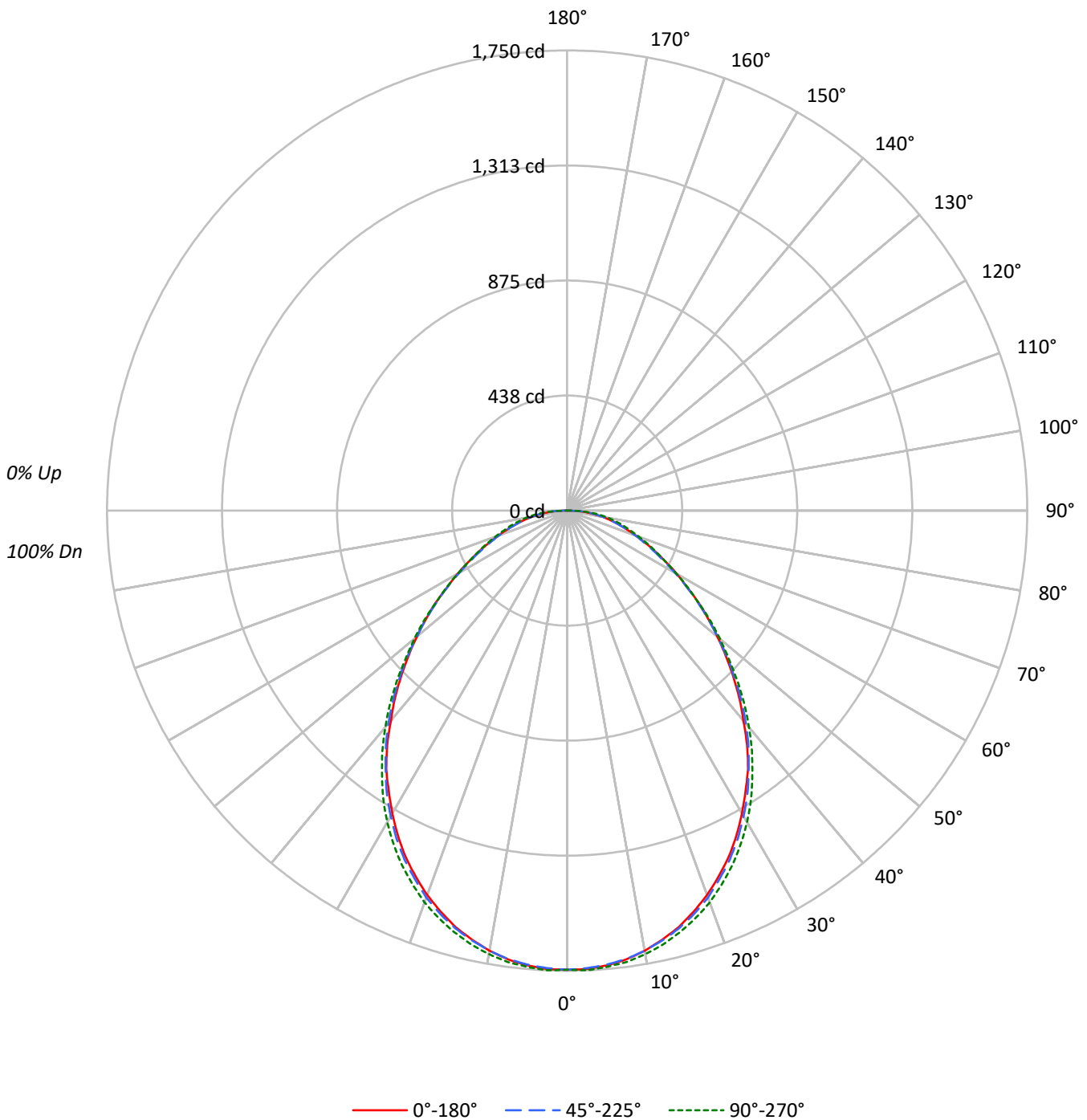
Input Watts (W): 32.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	94	92	90	91	89	87	85					85			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	90	80	73	68	78	71	66	75	70	65	72	68	64	62					62			
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54					54			
5	78	66	57	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	37	33	43	37	32	42	37	32	31					31			
10	55	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°	4700	4700	4700
5°	4691	4682	4704
10°	4644	4644	4681
15°	4567	4581	4623
20°	4455	4484	4542
25°	4316	4346	4416
30°	4132	4169	4252
35°	3940	3951	4034
40°	3661	3714	3779
45°	3400	3432	3483
50°	3123	3123	3172
55°	2865	2833	2849
60°	2593	2548	2584
65°	2365	2311	2386
70°	2185	2172	2277
75°	2104	2087	2296
80°	2126	2126	2438
85°	2220	2325	2788



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.7	4.2
10°-20°	463.6	11.7
20°-30°	674.1	17.0
30°-40°	754.5	19.0
40°-50°	696.4	17.6
50°-60°	543.4	13.7
60°-70°	367.9	9.3
70°-80°	219.7	5.5
80°-90°	82.5	2.1
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°	1302.4	32.8
0°-40°	2056.9	51.9
0°-60°	3296.7	83.1
0°-90°	3966.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3966.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1746	1746	1746	1746	1746	
5°	1736	1733	1733	1740	1742	165
15°	1639	1639	1644	1654	1660	461
25°	1454	1454	1464	1479	1487	668
35°	1200	1198	1203	1221	1228	746
45°	893	898	902	908	915	689
55°	611	606	604	607	607	545
65°	371	368	363	370	375	370
75°	202	201	201	212	221	215
85°	72	70	75	87	90	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1746.5	1746.5	1746.5	1746.5	1746.5
2.5°	1744.8	1741.5	1741.5	1746.5	1749.8
5°	1736.5	1733.1	1733.1	1739.8	1741.5
7.5°	1721.4	1719.7	1719.7	1726.4	1731.4
10°	1699.6	1698.0	1699.6	1706.3	1713.0
12.5°	1671.2	1671.2	1674.6	1682.9	1689.6
15°	1639.4	1639.4	1644.4	1654.5	1659.5
17.5°	1599.3	1600.9	1607.6	1619.4	1624.4
20°	1555.8	1559.1	1565.8	1575.9	1585.9
22.5°	1505.6	1508.9	1515.6	1530.7	1537.4
25°	1453.7	1453.7	1463.8	1478.8	1487.2
27.5°	1393.5	1395.2	1405.2	1422.0	1430.3
30°	1329.9	1335.0	1341.7	1356.7	1368.4
32.5°	1263.0	1268.0	1276.4	1293.1	1301.5
35°	1199.5	1197.8	1202.8	1221.2	1227.9
37.5°	1124.2	1125.9	1132.5	1145.9	1154.3
40°	1042.2	1050.6	1057.3	1067.3	1075.7
42.5°	970.3	975.3	980.3	990.3	997.0
45°	893.3	898.3	901.7	908.4	915.1
47.5°	818.0	819.7	824.7	828.1	833.1
50°	746.1	747.8	746.1	751.1	757.8
52.5°	675.8	674.2	674.2	675.8	685.9
55°	610.6	605.6	603.9	607.3	607.3
57.5°	538.7	537.0	537.0	535.3	543.7
60°	481.8	476.8	473.4	476.8	480.1
62.5°	423.2	418.2	414.9	421.6	421.6
65°	371.4	368.0	363.0	369.7	374.7
67.5°	321.2	317.8	316.2	324.5	331.2
70°	277.7	276.0	276.0	284.4	289.4
72.5°	237.5	235.9	235.9	247.6	252.6
75°	202.4	200.7	200.7	212.5	220.8
77.5°	167.3	165.6	170.6	180.7	189.0
80°	137.2	135.5	137.2	150.6	157.3
82.5°	103.7	103.7	107.1	120.4	127.1
85°	71.9	70.3	75.3	87.0	90.3
87.5°	36.8	38.5	40.1	46.8	46.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)