

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: P476036

Luminaire Tested: **22GR-LD5-90-A-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P476036  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-90-A-UNV-L830-CD1-U  
Description: GR 2'X2' LED TROFFER w/ A LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8478.6 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

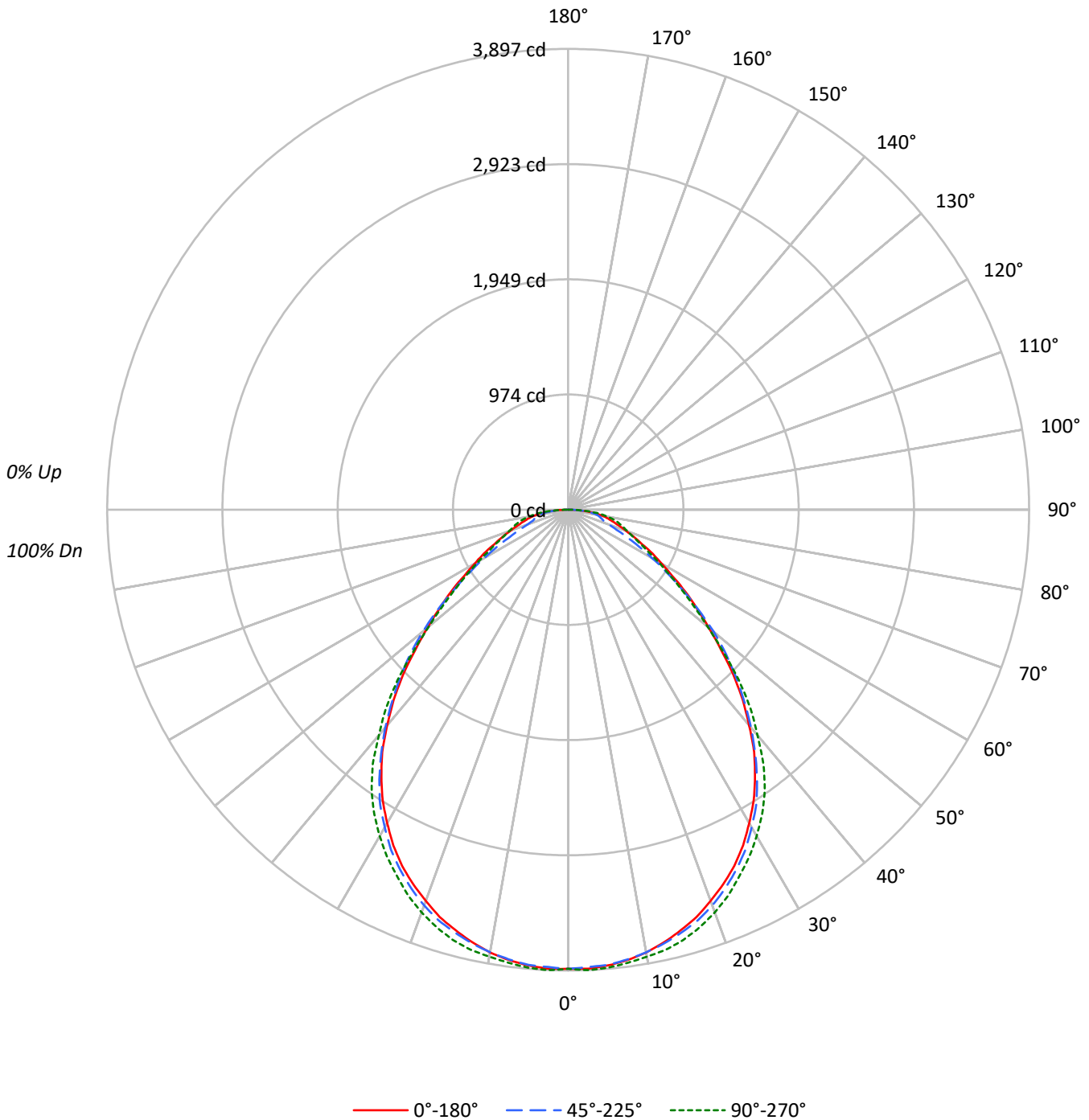
Input Watts (W): 69.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	94	87	82	99	92	86	81	88	84	79	85	81	78	82	79	76	74					74			
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64					64			
4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58	56					56			
5	80	68	59	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49					49			
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44					44			
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39					39			
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36					36			
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32					32			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30					30			

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

	0°	45°	90°
0°	10449	10449	10449
5°	10452	10436	10500
10°	10389	10384	10486
15°	10257	10312	10493
20°	10080	10198	10379
25°	9865	9977	10158
30°	9508	9638	9901
35°	9042	9145	9516
40°	8359	8449	8746
45°	7508	7644	7765
50°	6491	6723	6426
55°	5666	5516	5443
60°	4906	4417	4715
65°	4385	3467	4235
70°	4067	2871	4178
75°	4060	3034	4636
80°	4499	3818	5227
85°	4690	4143	5916



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	367.5	4.3
10°-20°	1046.5	12.3
20°-30°	1547.8	18.3
30°-40°	1746.6	20.6
40°-50°	1539.7	18.2
50°-60°	1056.2	12.5
60°-70°	623.3	7.4
70°-80°	388.9	4.6
80°-90°	162.1	1.9
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°	2961.8	34.9
0°-40°	4708.4	55.5
0°-60°	7304.3	86.1
0°-90°	8478.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8478.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3883	3883	3883	3883	3883	
5°	3869	3861	3864	3877	3887	367
15°	3682	3685	3702	3747	3766	1038
25°	3323	3335	3360	3404	3421	1526
35°	2752	2776	2784	2851	2897	1715
45°	1973	1983	2008	2020	2040	1516
55°	1208	1178	1176	1137	1160	1083
65°	689	606	544	630	665	694
75°	390	351	292	408	446	419
85°	152	142	134	175	192	164
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3882.8	3882.8	3882.8	3882.8	3882.8
2.5°	3884.9	3875.0	3871.3	3887.0	3896.9
5°	3869.2	3861.4	3863.5	3877.0	3887.0
7.5°	3841.5	3835.8	3835.8	3855.1	3865.0
10°	3801.9	3800.3	3800.3	3823.8	3837.4
12.5°	3747.0	3748.6	3756.4	3788.3	3811.8
15°	3681.8	3685.4	3701.6	3747.0	3766.4
17.5°	3610.8	3610.8	3642.1	3677.6	3701.6
20°	3519.9	3525.7	3561.2	3600.9	3624.3
22.5°	3427.0	3436.9	3466.7	3512.1	3533.5
25°	3322.6	3334.6	3360.2	3403.5	3421.3
27.5°	3200.4	3216.1	3243.7	3275.1	3312.7
30°	3060.0	3084.0	3101.7	3145.1	3186.3
32.5°	2918.0	2939.9	2959.7	3005.1	3052.1
35°	2752.5	2776.0	2783.8	2851.1	2896.6
37.5°	2582.8	2592.7	2596.4	2663.7	2712.8
40°	2379.7	2399.0	2405.3	2458.5	2489.8
42.5°	2183.9	2192.3	2203.7	2243.4	2281.0
45°	1973.0	1982.9	2008.5	2020.5	2040.3
47.5°	1752.1	1781.9	1811.1	1773.5	1775.6
50°	1550.6	1574.6	1605.9	1534.9	1534.9
52.5°	1371.0	1383.0	1385.1	1326.1	1337.6
55°	1207.6	1177.8	1175.7	1136.6	1160.1
57.5°	1043.7	1004.5	990.4	978.4	1006.1
60°	911.6	840.6	820.7	838.5	876.1
62.5°	803.0	712.1	674.5	720.0	753.9
65°	688.6	605.6	544.5	629.6	665.1
67.5°	599.9	521.0	442.2	562.3	587.9
70°	516.9	455.8	364.9	511.1	531.0
72.5°	450.0	402.5	315.9	461.5	485.5
75°	390.5	351.4	291.8	408.3	445.9
77.5°	343.5	299.7	272.5	352.9	398.4
80°	290.3	246.4	246.4	296.0	337.3
82.5°	228.7	193.2	199.4	240.7	270.4
85°	151.9	142.0	134.2	175.4	191.6
87.5°	76.7	78.8	71.0	90.8	92.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)