

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: P476060

Luminaire Tested: **22GR-LD5-90-A-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P476060  
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-L840-CD1-U  
Description: GR 2'X2' LED TROFFER w/ A LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8953.1 lumens  
Efficiency: N/A  
Efficacy: 129.2 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

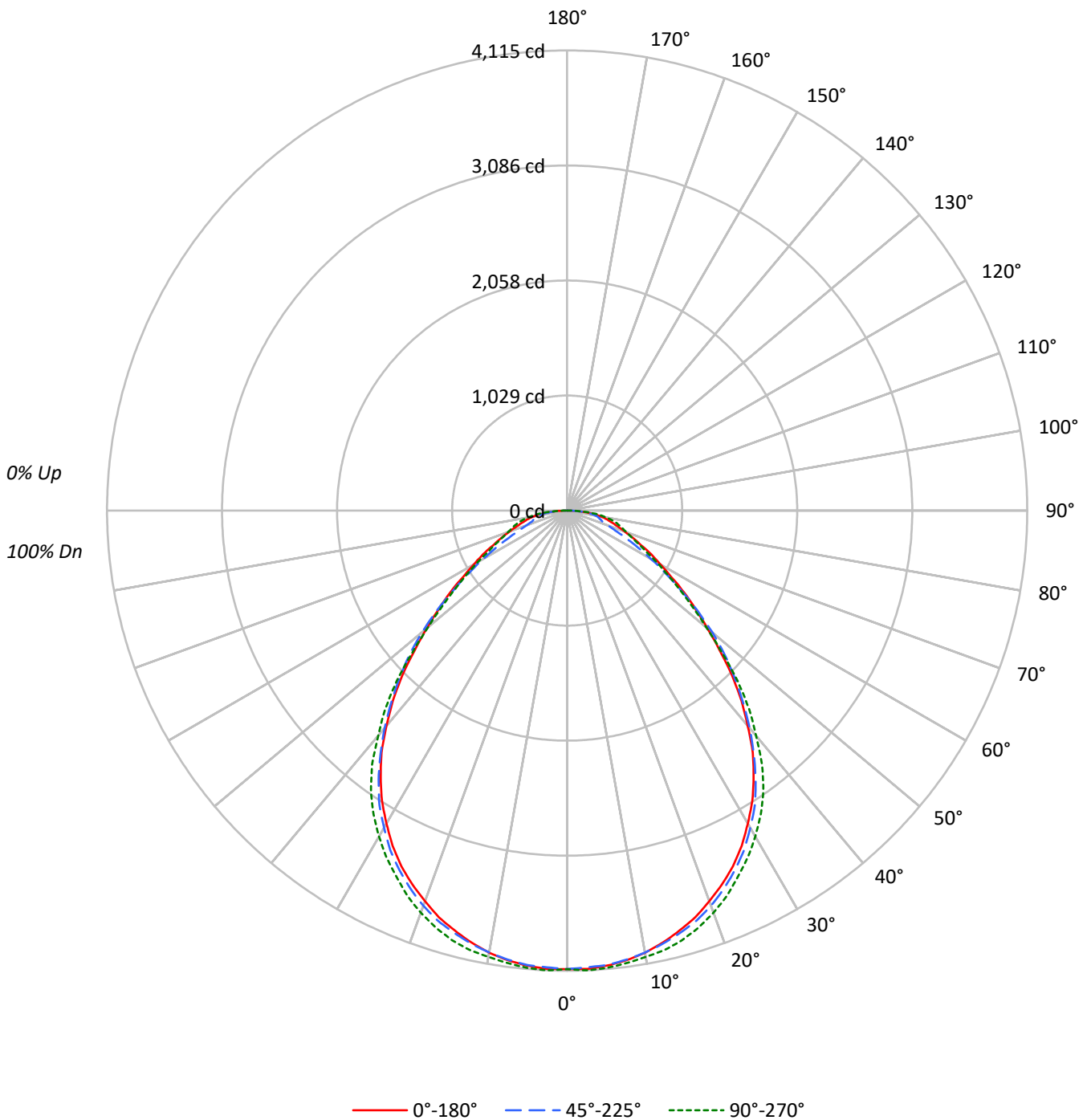
Input Watts (W): 69.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	11033	11033	11033
5°	11037	11020	11087
10°	10970	10965	11072
15°	10831	10890	11080
20°	10644	10769	10960
25°	10417	10535	10727
30°	10040	10177	10455
35°	9548	9657	10048
40°	8827	8922	9236
45°	7929	8071	8199
50°	6855	7099	6785
55°	5983	5825	5747
60°	5181	4665	4979
65°	4630	3661	4472
70°	4294	3032	4412
75°	4288	3204	4895
80°	4750	4032	5518
85°	4952	4375	6246



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	388.0	4.3
10°-20°	1105.1	12.3
20°-30°	1634.4	18.3
30°-40°	1844.4	20.6
40°-50°	1625.9	18.2
50°-60°	1115.3	12.5
60°-70°	658.2	7.4
70°-80°	410.7	4.6
80°-90°	171.2	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°	3127.5	34.9
0°-40°	4971.9	55.5
0°-60°	7713.1	86.1
0°-90°	8953.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8953.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4100	4100	4100	4100	4100	
5°	4086	4078	4080	4094	4104	388
15°	3888	3892	3909	3957	3977	1096
25°	3508	3521	3548	3594	3613	1611
35°	2906	2931	2940	3011	3059	1811
45°	2083	2094	2121	2134	2154	1600
55°	1275	1244	1242	1200	1225	1144
65°	727	640	575	665	702	733
75°	412	371	308	431	471	443
85°	160	150	142	185	202	173
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4100.1	4100.1	4100.1	4100.1	4100.1
2.5°	4102.3	4091.8	4087.9	4104.5	4114.9
5°	4085.7	4077.5	4079.7	4094.0	4104.5
7.5°	4056.5	4050.4	4050.4	4070.8	4081.3
10°	4014.6	4013.0	4013.0	4037.8	4052.1
12.5°	3956.7	3958.4	3966.6	4000.3	4025.1
15°	3887.8	3891.7	3908.8	3956.7	3977.1
17.5°	3812.8	3812.8	3845.9	3883.4	3908.8
20°	3716.9	3723.0	3760.5	3802.4	3827.2
22.5°	3618.8	3629.2	3660.7	3708.6	3731.2
25°	3508.5	3521.2	3548.2	3594.0	3612.7
27.5°	3379.5	3396.0	3425.3	3458.3	3498.0
30°	3231.2	3256.6	3275.3	3321.1	3364.6
32.5°	3081.2	3104.4	3125.4	3173.3	3222.9
35°	2906.5	2931.3	2939.6	3010.7	3058.6
37.5°	2727.3	2737.8	2741.6	2812.8	2864.6
40°	2512.8	2533.2	2539.9	2596.1	2629.2
42.5°	2306.1	2314.9	2327.1	2369.0	2408.7
45°	2083.4	2093.9	2120.9	2133.6	2154.5
47.5°	1850.2	1881.6	1912.5	1872.8	1875.0
50°	1637.4	1662.7	1695.8	1620.8	1620.8
52.5°	1447.7	1460.4	1462.6	1400.3	1412.4
55°	1275.2	1243.7	1241.5	1200.2	1225.0
57.5°	1102.1	1060.7	1045.8	1033.1	1062.4
60°	962.6	887.6	866.7	885.4	925.1
62.5°	847.9	752.0	712.3	760.3	796.1
65°	727.2	639.5	575.0	664.9	702.4
67.5°	633.4	550.2	467.0	593.8	620.8
70°	545.8	481.3	385.4	539.7	560.7
72.5°	475.2	425.1	333.5	487.4	512.7
75°	412.4	371.0	308.2	431.1	470.8
77.5°	362.8	316.4	287.8	372.7	420.6
80°	306.5	260.2	260.2	312.6	356.1
82.5°	241.5	204.0	210.6	254.2	285.6
85°	160.4	150.0	141.7	185.2	202.3
87.5°	81.0	83.2	75.0	95.9	98.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)