

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: P475650

Luminaire Tested: **24GR-LD5-90-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475650
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-90-A19/156-UNV-L830-CD1-U
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8259.6 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.28
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

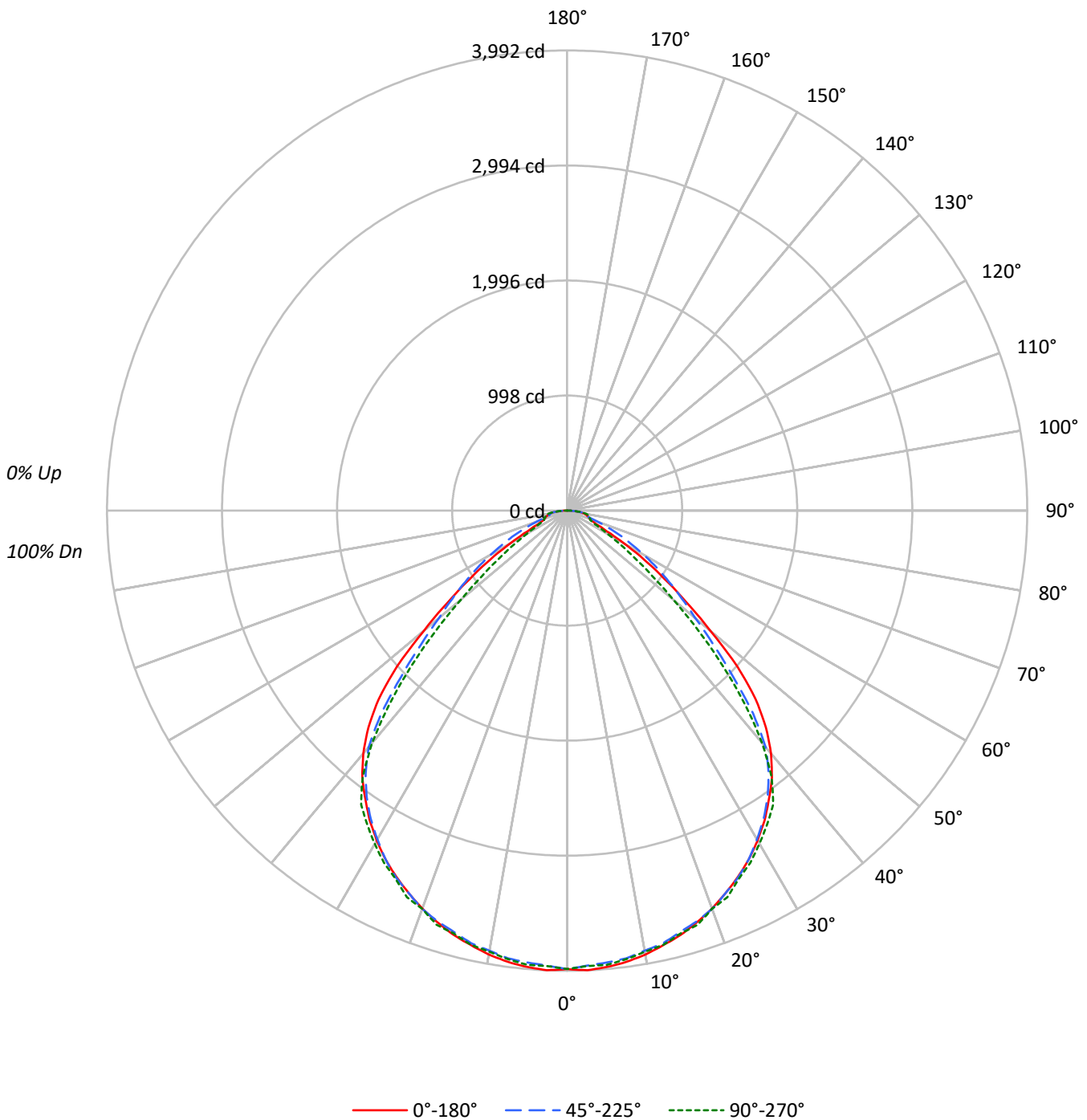
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88																			88									
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76																			76									
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			67									
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59																			59									
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52																			52									
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			47									
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																			42									
8	66	54	46	40	65	53	46	40	52	45	40	50	44	40	49	44	40	38																			38									
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36	34																			34									
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31																			31									

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5351	5351	5351
5°	5368	5316	5343
10°	5342	5296	5309
15°	5307	5273	5291
20°	5261	5265	5263
25°	5206	5214	5232
30°	5133	5117	5185
35°	5016	4979	5117
40°	4834	4707	4623
45°	4400	3872	3653
50°	3395	3036	2510
55°	2412	2533	1661
60°	1527	2046	1084
65°	886	1609	792
70°	820	1108	840
75°	944	844	1001
80°	1179	1166	1323
85°	1284	1363	1416



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.8	4.5
10°-20°	1072.1	13.0
20°-30°	1617.6	19.6
30°-40°	1898.7	23.0
40°-50°	1598.5	19.4
50°-60°	908.0	11.0
60°-70°	453.2	5.5
70°-80°	237.6	2.9
80°-90°	99.1	1.2
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°	3064.5	37.1
0°-40°	4963.2	60.1
0°-60°	7469.7	90.4
0°-90°	8259.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8259.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3977	3977	3977	3977	3977	
5°	3975	3946	3936	3943	3956	377
15°	3810	3801	3786	3796	3798	1074
25°	3506	3508	3512	3522	3524	1615
35°	3054	3037	3031	3083	3115	1907
45°	2312	2220	2035	2000	1920	1741
55°	1028	1100	1080	931	708	936
65°	278	577	505	429	249	317
75°	182	280	162	244	193	192
85°	83	99	88	112	92	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3977.3	3977.3	3977.3	3977.3	3977.3
2.5°	3991.6	3972.3	3950.4	3944.5	3954.6
5°	3974.8	3946.2	3936.1	3942.9	3956.3
7.5°	3948.8	3919.3	3917.6	3905.9	3926.0
10°	3910.1	3890.7	3876.4	3883.2	3885.7
12.5°	3861.3	3855.4	3844.5	3835.2	3857.9
15°	3810.0	3800.8	3785.6	3795.7	3798.2
17.5°	3744.4	3739.4	3736.8	3744.4	3766.3
20°	3674.6	3674.6	3677.1	3678.8	3675.5
22.5°	3591.4	3588.9	3592.2	3598.9	3630.9
25°	3506.4	3508.1	3512.3	3521.6	3524.1
27.5°	3412.3	3413.1	3411.4	3420.7	3442.5
30°	3303.8	3300.4	3293.7	3313.9	3337.4
32.5°	3186.1	3179.3	3171.8	3202.9	3228.1
35°	3054.1	3037.2	3031.4	3082.6	3115.4
37.5°	2918.7	2884.2	2871.6	2909.4	2913.6
40°	2752.2	2700.9	2679.9	2642.9	2631.9
42.5°	2552.1	2499.1	2385.6	2328.4	2288.0
45°	2312.4	2219.9	2034.9	1999.6	1919.7
47.5°	2003.0	1904.6	1719.6	1643.9	1553.1
50°	1622.0	1564.9	1450.5	1356.3	1199.1
52.5°	1296.6	1308.4	1254.6	1124.3	929.2
55°	1028.4	1099.9	1079.7	930.8	708.0
57.5°	791.3	945.1	920.8	766.0	540.7
60°	567.6	809.8	760.2	630.7	402.8
62.5°	389.3	691.2	623.1	520.5	308.6
65°	278.3	576.8	505.4	428.8	248.9
67.5°	228.7	471.7	387.6	364.1	216.9
70°	208.5	380.1	281.7	317.9	213.6
72.5°	198.4	318.7	206.9	278.3	203.5
75°	181.6	280.0	162.3	243.9	192.6
77.5°	168.2	242.2	151.4	213.6	187.5
80°	152.2	191.7	150.5	180.8	170.7
82.5°	122.8	139.6	127.0	148.0	137.9
85°	83.2	99.2	88.3	111.8	91.7
87.5°	41.2	48.8	39.5	53.0	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)