

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: P475988

Luminaire Tested: **22GR-LD5-90-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475988
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-90-A19/156-UNV-L830-CD1-U
Description: GR 2'X2' 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: 8303.7 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

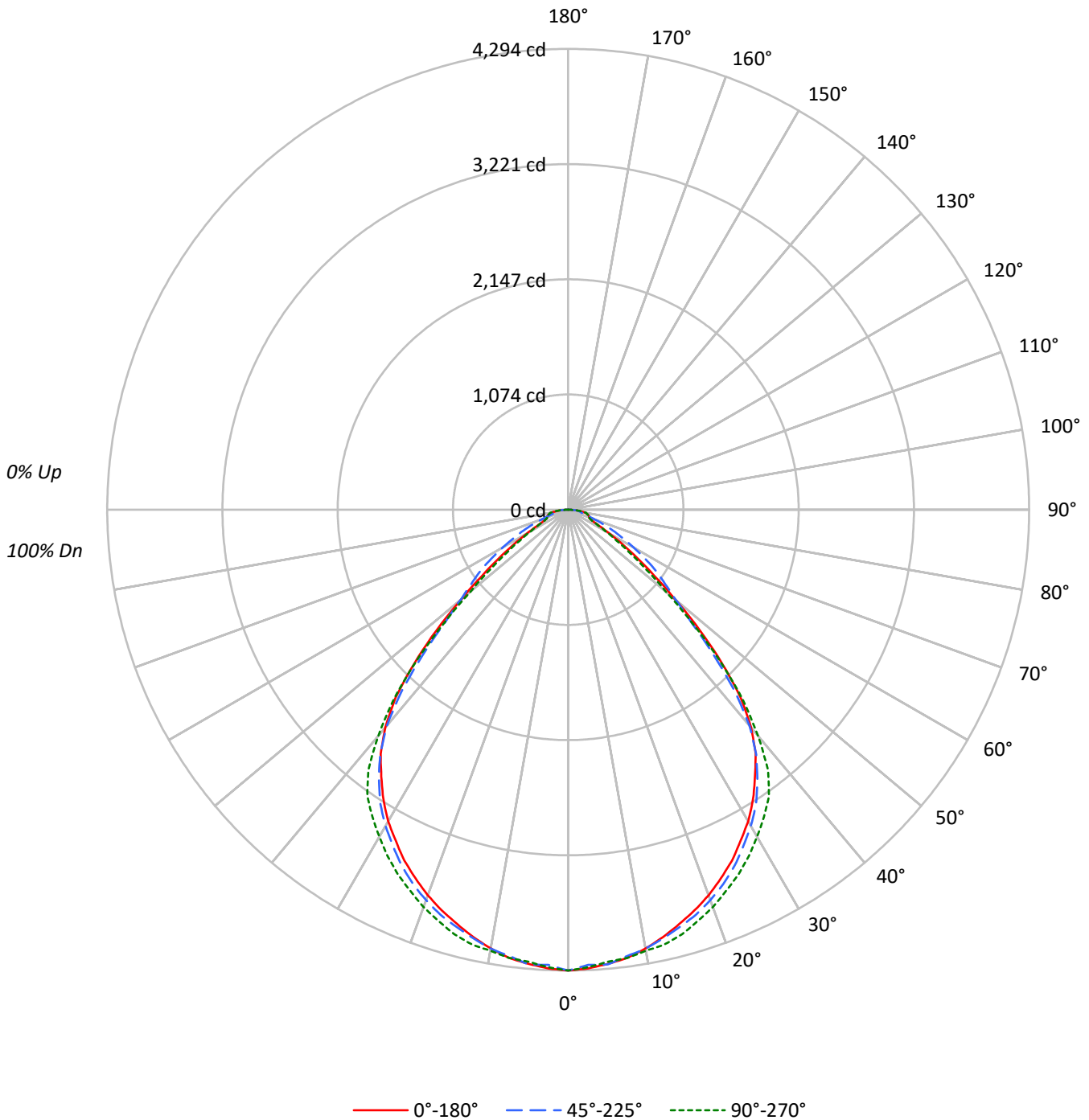
Input Watts (W): 69.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90					88				
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79					77				
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70					68				
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62					60				
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55					53				
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50					48				
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45					43				
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41					39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37					36				
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11555	11555	11555
5°	11474	11487	11422
10°	11345	11350	11402
15°	11136	11212	11412
20°	10950	11086	11283
25°	10714	10880	11135
30°	10415	10574	10935
35°	9969	10095	10713
40°	9305	9232	9664
45°	7728	7291	7661
50°	5445	5472	4991
55°	3657	4703	3290
60°	2359	3774	2187
65°	1634	2923	1573
70°	1643	1994	1630
75°	2021	1557	2006
80°	2470	1804	2617
85°	2411	2461	2658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	402.0	4.8
10°-20°	1138.0	13.7
20°-30°	1687.6	20.3
30°-40°	1930.5	23.2
40°-50°	1528.2	18.4
50°-60°	833.8	10.0
60°-70°	436.3	5.3
70°-80°	251.9	3.0
80°-90°	95.3	1.1
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°	3227.6	38.9
0°-40°	5158.2	62.1
0°-60°	7520.2	90.6
0°-90°	8303.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8303.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4294	4294	4294	4294	4294	
5°	4248	4217	4252	4238	4228	403
15°	3997	4018	4024	4056	4096	1128
25°	3608	3613	3664	3710	3750	1659
35°	3035	3035	3073	3184	3261	1893
45°	2031	2019	1916	2010	2013	1544
55°	779	974	1002	934	701	723
65°	257	516	459	491	247	277
75°	194	311	150	306	193	202
85°	78	102	80	104	86	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4293.8	4293.8	4293.8	4293.8	4293.8
2.5°	4277.9	4252.4	4246.0	4258.7	4266.7
5°	4247.6	4217.3	4252.4	4238.0	4228.5
7.5°	4212.5	4201.4	4195.0	4217.3	4212.5
10°	4152.0	4136.0	4153.6	4166.3	4172.7
12.5°	4078.6	4086.6	4089.8	4129.6	4148.8
15°	3997.4	4018.1	4024.5	4056.3	4096.2
17.5°	3914.5	3919.3	3957.5	3999.0	4018.1
20°	3823.6	3831.6	3871.4	3909.7	3940.0
22.5°	3716.8	3726.4	3775.8	3818.8	3844.3
25°	3608.5	3613.2	3664.2	3710.5	3750.3
27.5°	3477.8	3503.3	3533.5	3597.3	3640.3
30°	3351.9	3367.8	3402.9	3473.0	3519.2
32.5°	3203.6	3210.0	3254.6	3331.1	3393.3
35°	3034.7	3034.7	3072.9	3184.5	3261.0
37.5°	2867.3	2845.0	2875.3	3002.8	3057.0
40°	2649.0	2633.0	2628.2	2715.9	2751.0
42.5°	2381.2	2350.9	2296.7	2386.0	2414.7
45°	2030.6	2019.4	1915.8	2009.8	2013.0
47.5°	1664.0	1671.9	1555.6	1649.6	1579.5
50°	1300.6	1383.5	1307.0	1346.8	1192.2
52.5°	1012.1	1166.7	1138.0	1122.1	911.7
55°	779.4	973.8	1002.5	934.0	701.3
57.5°	594.5	830.4	847.9	800.1	533.9
60°	438.3	701.3	701.3	679.0	406.4
62.5°	326.7	602.5	570.6	577.0	310.8
65°	256.6	516.4	459.0	490.9	247.0
67.5°	215.2	430.3	347.5	424.0	215.2
70°	208.8	374.6	253.4	382.5	207.2
72.5°	207.2	344.3	189.7	347.5	208.8
75°	194.4	310.8	149.8	306.0	192.9
77.5°	178.5	258.2	124.3	258.2	180.1
80°	159.4	196.0	116.4	200.8	168.9
82.5°	122.7	140.3	103.6	141.9	130.7
85°	78.1	102.0	79.7	103.6	86.1
87.5°	35.1	54.2	35.1	55.8	38.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)