

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: P476000

Luminaire Tested: **22GR-LD5-90-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476000
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-L835-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8604.8 lumens
Efficiency: N/A
Efficacy: 124.2 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

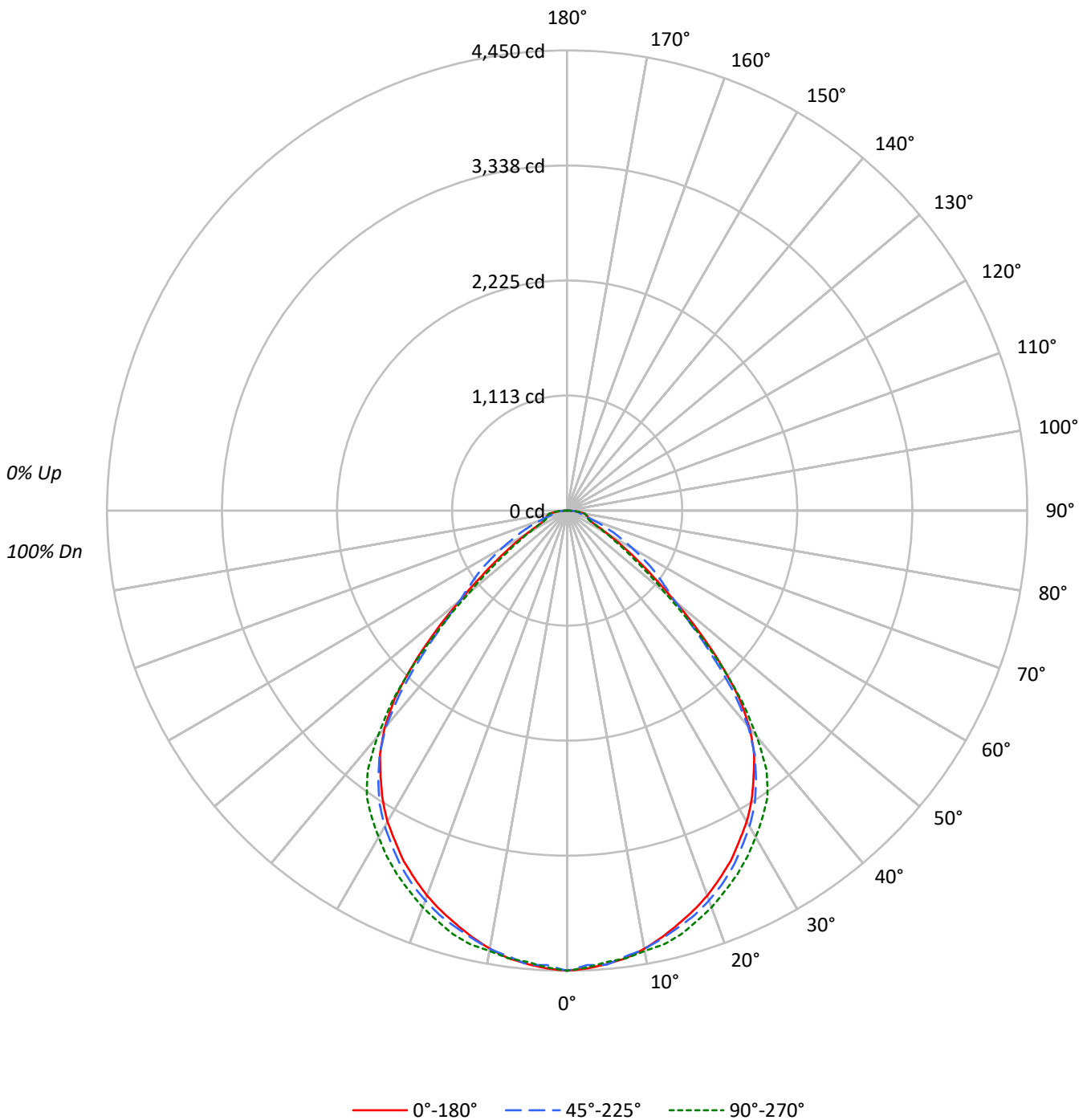
Input Watts (W): 69.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11974	11974	11974
5°	11890	11903	11836
10°	11757	11761	11815
15°	11540	11618	11825
20°	11347	11489	11692
25°	11103	11274	11539
30°	10793	10957	11332
35°	10331	10461	11101
40°	9643	9568	10014
45°	8008	7555	7939
50°	5642	5670	5172
55°	3789	4874	3409
60°	2444	3911	2267
65°	1693	3029	1630
70°	1703	2066	1689
75°	2095	1615	2077
80°	2560	1869	2713
85°	2498	2550	2754



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.6	4.8
10°-20°	1179.3	13.7
20°-30°	1748.8	20.3
30°-40°	2000.5	23.2
40°-50°	1583.6	18.4
50°-60°	864.1	10.0
60°-70°	452.1	5.3
70°-80°	261.0	3.0
80°-90°	98.7	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°	3344.7	38.9
0°-40°	5345.2	62.1
0°-60°	7793.0	90.6
0°-90°	8604.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8604.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4450	4450	4450	4450	4450	
5°	4402	4370	4407	4392	4382	417
15°	4142	4164	4170	4204	4245	1168
25°	3739	3744	3797	3845	3886	1719
35°	3145	3145	3184	3300	3379	1961
45°	2104	2093	1985	2083	2086	1600
55°	808	1009	1039	968	727	749
65°	266	535	476	509	256	287
75°	202	322	155	317	200	209
85°	81	106	83	107	89	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4449.5	4449.5	4449.5	4449.5	4449.5
2.5°	4433.0	4406.6	4400.0	4413.2	4421.5
5°	4401.6	4370.3	4406.6	4391.7	4381.8
7.5°	4365.3	4353.8	4347.1	4370.3	4365.3
10°	4302.6	4286.0	4304.2	4317.4	4324.0
12.5°	4226.6	4234.8	4238.1	4279.4	4299.2
15°	4142.3	4163.8	4170.4	4203.5	4244.7
17.5°	4056.5	4061.4	4101.0	4144.0	4163.8
20°	3962.3	3970.6	4011.9	4051.5	4082.9
22.5°	3851.6	3861.6	3912.8	3957.4	3983.8
25°	3739.3	3744.3	3797.1	3845.0	3886.3
27.5°	3603.9	3630.3	3661.7	3727.8	3772.4
30°	3473.4	3489.9	3526.3	3598.9	3646.8
32.5°	3319.8	3326.4	3372.7	3451.9	3516.4
35°	3144.7	3144.7	3184.4	3300.0	3379.3
37.5°	2971.3	2948.2	2979.6	3111.7	3167.9
40°	2745.0	2728.5	2723.6	2814.4	2850.7
42.5°	2467.6	2436.2	2380.0	2472.5	2502.3
45°	2104.2	2092.6	1985.3	2082.7	2086.0
47.5°	1724.3	1732.6	1612.0	1709.5	1636.8
50°	1347.7	1433.6	1354.4	1395.6	1235.4
52.5°	1048.8	1209.0	1179.3	1162.8	944.7
55°	807.7	1009.2	1038.9	967.9	726.7
57.5°	616.1	860.5	878.7	829.1	553.3
60°	454.2	726.7	726.7	703.6	421.2
62.5°	338.6	624.3	591.3	597.9	322.1
65°	265.9	535.1	475.7	508.7	256.0
67.5°	223.0	445.9	360.1	439.3	223.0
70°	216.4	388.1	262.6	396.4	214.7
72.5°	214.7	356.8	196.5	360.1	216.4
75°	201.5	322.1	155.3	317.1	199.8
77.5°	185.0	267.6	128.8	267.6	186.6
80°	165.2	203.2	120.6	208.1	175.1
82.5°	127.2	145.3	107.4	147.0	135.4
85°	80.9	105.7	82.6	107.4	89.2
87.5°	36.3	56.2	36.3	57.8	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)