

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: P476001

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476001
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-20-A19/156-UNV-L840-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1979.6 lumens
Efficiency: N/A
Efficacy: 131.1 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

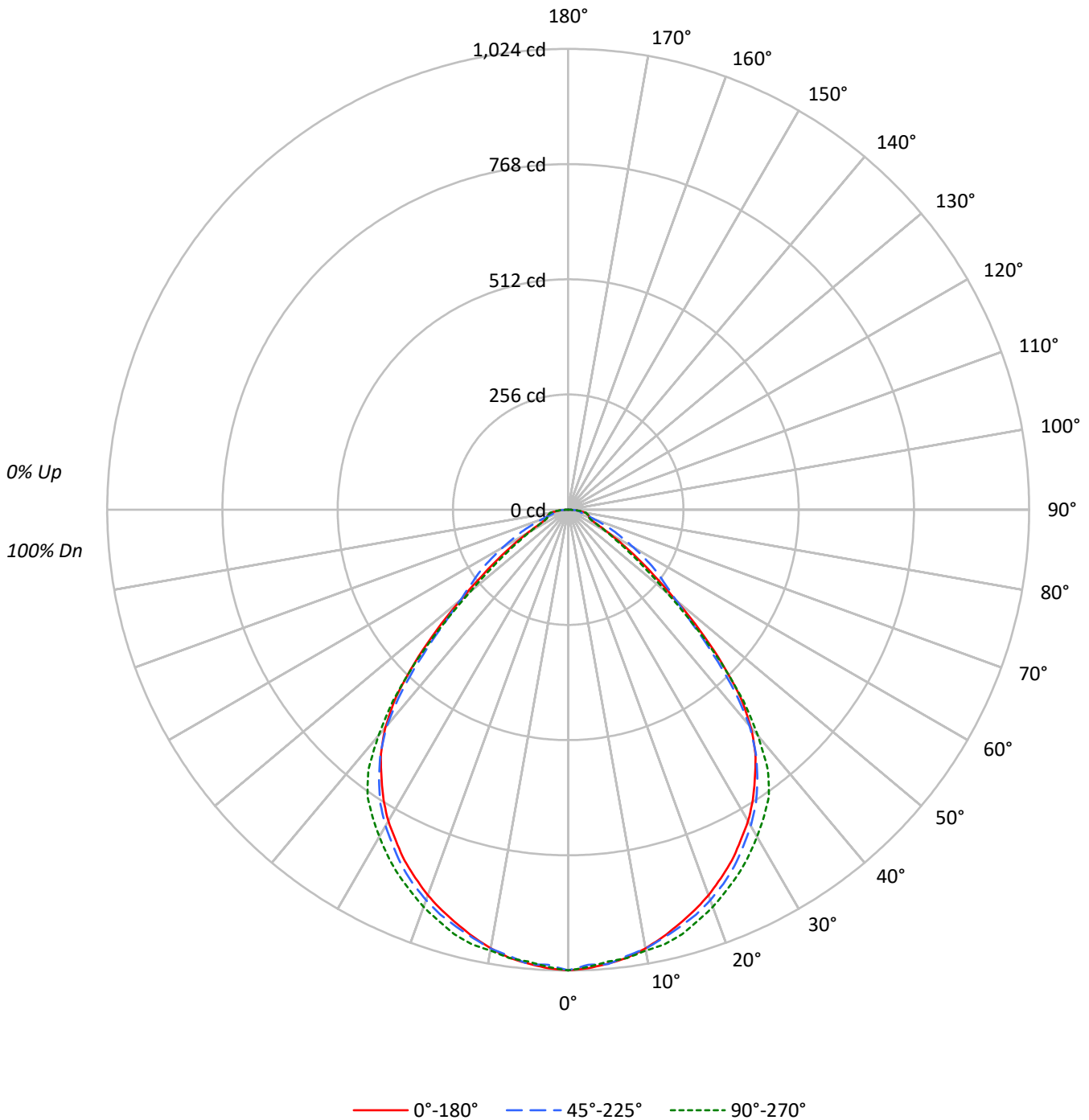
Input Watts (W): 15.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2754	2754	2754
5°	2735	2739	2723
10°	2705	2706	2718
15°	2655	2673	2720
20°	2611	2643	2690
25°	2554	2594	2655
30°	2483	2521	2607
35°	2377	2407	2554
40°	2218	2201	2304
45°	1842	1738	1826
50°	1298	1304	1190
55°	872	1121	784
60°	562	900	522
65°	390	697	375
70°	392	475	389
75°	482	371	478
80°	589	429	625
85°	574	587	633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	4.8
10°-20°	271.3	13.7
20°-30°	402.3	20.3
30°-40°	460.2	23.2
40°-50°	364.3	18.4
50°-60°	198.8	10.0
60°-70°	104.0	5.3
70°-80°	60.1	3.0
80°-90°	22.7	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°	769.5	38.9
0°-40°	1229.7	62.1
0°-60°	1792.8	90.6
0°-90°	1979.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1979.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1013	1005	1014	1010	1008	96
15°	953	958	959	967	976	269
25°	860	861	874	885	894	395
35°	724	724	733	759	777	451
45°	484	481	457	479	480	368
55°	186	232	239	223	167	172
65°	61	123	109	117	59	66
75°	46	74	36	73	46	48
85°	19	24	19	25	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1023.6	1023.6	1023.6	1023.6	1023.6
2.5°	1019.8	1013.8	1012.2	1015.3	1017.2
5°	1012.6	1005.4	1013.8	1010.3	1008.1
7.5°	1004.3	1001.6	1000.1	1005.4	1004.3
10°	989.8	986.0	990.2	993.3	994.8
12.5°	972.4	974.3	975.0	984.5	989.1
15°	953.0	957.9	959.4	967.0	976.5
17.5°	933.2	934.4	943.5	953.4	957.9
20°	911.6	913.5	923.0	932.1	939.3
22.5°	886.1	888.4	900.2	910.4	916.5
25°	860.3	861.4	873.6	884.6	894.1
27.5°	829.1	835.2	842.4	857.6	867.9
30°	799.1	802.9	811.2	828.0	839.0
32.5°	763.7	765.3	775.9	794.1	809.0
35°	723.5	723.5	732.6	759.2	777.4
37.5°	683.6	678.3	685.5	715.9	728.8
40°	631.5	627.7	626.6	647.5	655.8
42.5°	567.7	560.5	547.5	568.8	575.7
45°	484.1	481.4	456.7	479.1	479.9
47.5°	396.7	398.6	370.9	393.3	376.6
50°	310.1	329.8	311.6	321.1	284.2
52.5°	241.3	278.1	271.3	267.5	217.3
55°	185.8	232.2	239.0	222.7	167.2
57.5°	141.7	198.0	202.1	190.7	127.3
60°	104.5	167.2	167.2	161.9	96.9
62.5°	77.9	143.6	136.0	137.6	74.1
65°	61.2	123.1	109.4	117.0	58.9
67.5°	51.3	102.6	82.8	101.1	51.3
70°	49.8	89.3	60.4	91.2	49.4
72.5°	49.4	82.1	45.2	82.8	49.8
75°	46.4	74.1	35.7	73.0	46.0
77.5°	42.6	61.6	29.6	61.6	42.9
80°	38.0	46.7	27.7	47.9	40.3
82.5°	29.3	33.4	24.7	33.8	31.2
85°	18.6	24.3	19.0	24.7	20.5
87.5°	8.4	12.9	8.4	13.3	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)