

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: P475979

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475979
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-28-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: 2603.5 lumens
Efficiency: N/A
Efficacy: 124.0 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

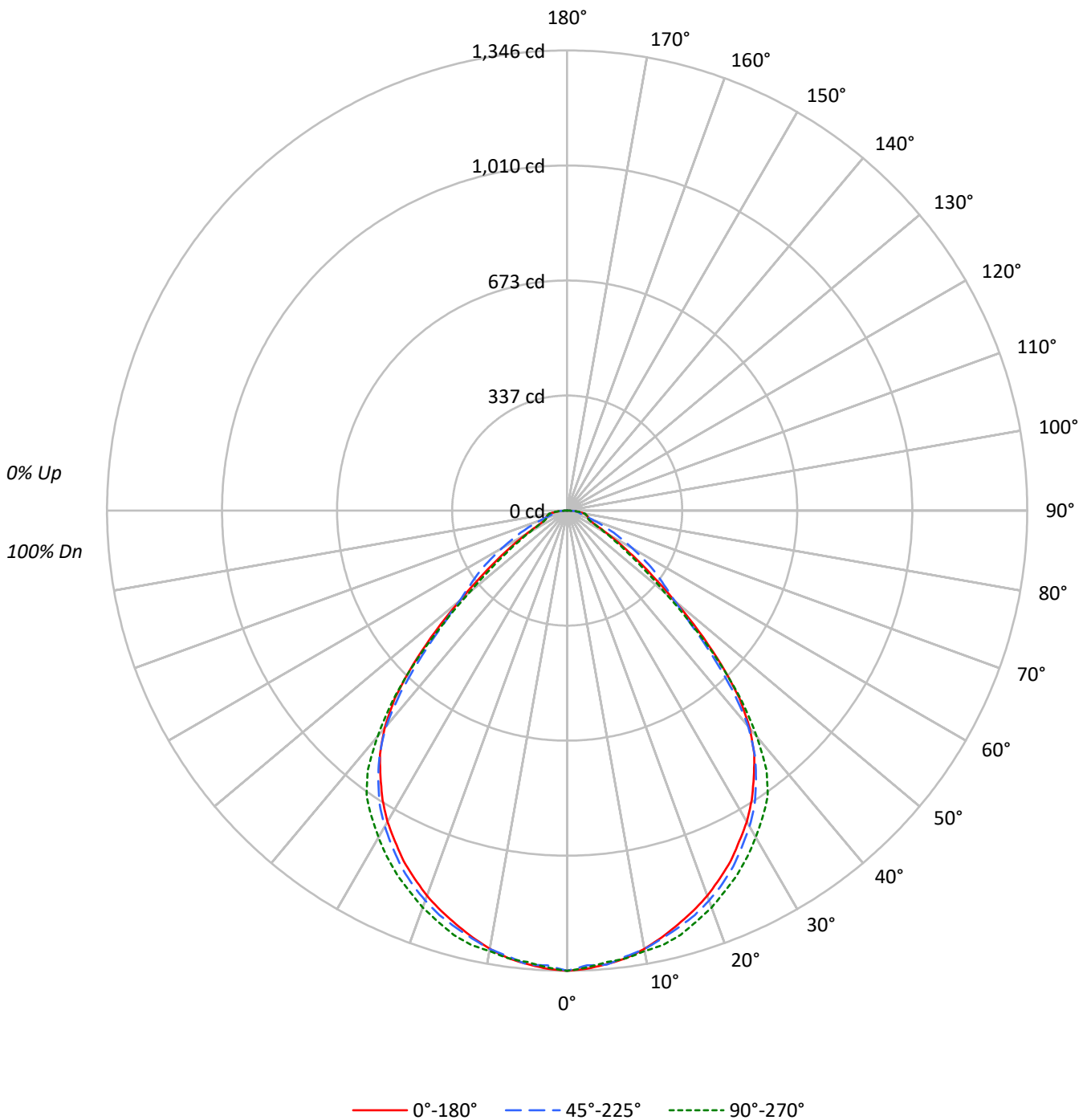
Input Watts (W): 21
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3623	3623	3623
5°	3598	3602	3581
10°	3557	3559	3575
15°	3492	3515	3578
20°	3433	3476	3538
25°	3359	3411	3491
30°	3265	3315	3429
35°	3126	3165	3359
40°	2917	2895	3030
45°	2423	2286	2402
50°	1707	1716	1565
55°	1147	1475	1032
60°	739	1183	686
65°	513	916	493
70°	515	625	511
75°	634	489	629
80°	775	566	821
85°	756	772	834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.1	4.8
10°-20°	356.8	13.7
20°-30°	529.1	20.3
30°-40°	605.3	23.2
40°-50°	479.2	18.4
50°-60°	261.4	10.0
60°-70°	136.8	5.3
70°-80°	79.0	3.0
80°-90°	29.9	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°	1012.0	38.9
0°-40°	1617.3	62.1
0°-60°	2357.9	90.6
0°-90°	2603.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2603.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1332	1322	1333	1329	1326	126
15°	1253	1260	1262	1272	1284	354
25°	1131	1133	1149	1163	1176	520
35°	952	952	964	998	1022	593
45°	637	633	601	630	631	484
55°	244	305	314	293	220	227
65°	80	162	144	154	78	87
75°	61	97	47	96	60	63
85°	24	32	25	32	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1346.3	1346.3	1346.3	1346.3	1346.3
2.5°	1341.3	1333.3	1331.3	1335.3	1337.8
5°	1331.8	1322.3	1333.3	1328.8	1325.8
7.5°	1320.8	1317.3	1315.3	1322.3	1320.8
10°	1301.8	1296.8	1302.3	1306.3	1308.3
12.5°	1278.8	1281.3	1282.3	1294.8	1300.8
15°	1253.3	1259.8	1261.8	1271.8	1284.3
17.5°	1227.3	1228.8	1240.8	1253.8	1259.8
20°	1198.8	1201.3	1213.8	1225.8	1235.3
22.5°	1165.4	1168.4	1183.8	1197.3	1205.3
25°	1131.4	1132.9	1148.9	1163.4	1175.9
27.5°	1090.4	1098.4	1107.9	1127.9	1141.4
30°	1050.9	1055.9	1066.9	1088.9	1103.4
32.5°	1004.4	1006.4	1020.4	1044.4	1063.9
35°	951.5	951.5	963.5	998.5	1022.4
37.5°	899.0	892.0	901.5	941.5	958.5
40°	830.5	825.5	824.0	851.5	862.5
42.5°	746.6	737.1	720.1	748.1	757.1
45°	636.7	633.2	600.7	630.2	631.2
47.5°	521.7	524.2	487.7	517.2	495.2
50°	407.8	433.8	409.8	422.3	373.8
52.5°	317.3	365.8	356.8	351.8	285.8
55°	244.4	305.3	314.3	292.8	219.9
57.5°	186.4	260.4	265.9	250.9	167.4
60°	137.4	219.9	219.9	212.9	127.4
62.5°	102.4	188.9	178.9	180.9	97.4
65°	80.5	161.9	143.9	153.9	77.5
67.5°	67.5	134.9	108.9	132.9	67.5
70°	65.5	117.4	79.5	119.9	65.0
72.5°	65.0	107.9	59.5	108.9	65.5
75°	61.0	97.4	47.0	95.9	60.5
77.5°	56.0	81.0	39.0	81.0	56.5
80°	50.0	61.5	36.5	63.0	53.0
82.5°	38.5	44.0	32.5	44.5	41.0
85°	24.5	32.0	25.0	32.5	27.0
87.5°	11.0	17.0	11.0	17.5	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)