

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: P475991

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475991
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-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: 2697.9 lumens
Efficiency: N/A
Efficacy: 128.5 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

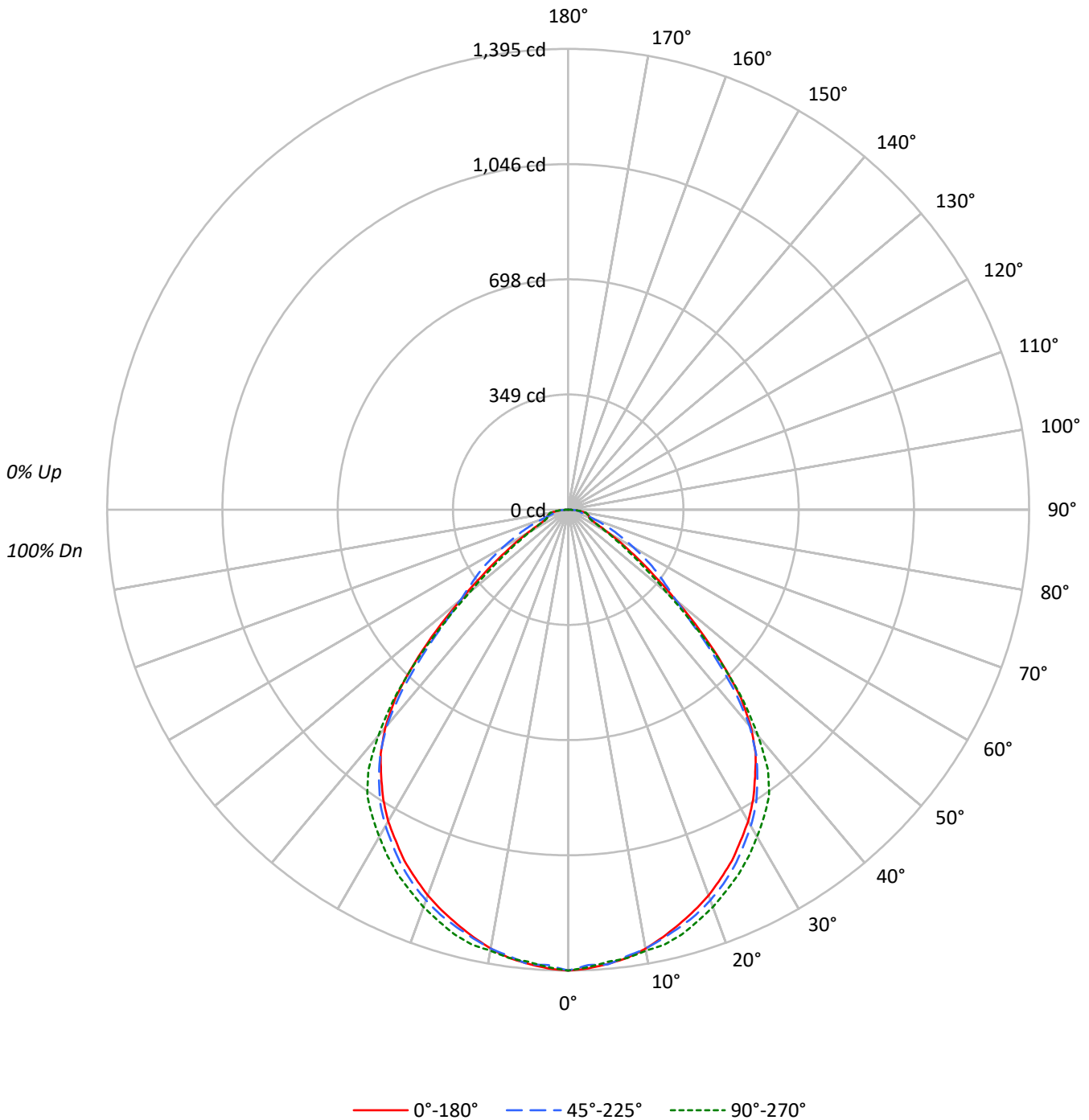
Input Watts (W): 21
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				
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°	3754	3754	3754
5°	3728	3732	3711
10°	3686	3687	3704
15°	3618	3643	3708
20°	3558	3602	3666
25°	3481	3535	3618
30°	3384	3435	3553
35°	3239	3280	3481
40°	3023	3000	3140
45°	2511	2369	2489
50°	1769	1778	1622
55°	1188	1528	1069
60°	766	1227	711
65°	531	949	511
70°	533	648	530
75°	657	506	652
80°	803	586	851
85°	784	800	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	4.8
10°-20°	369.7	13.7
20°-30°	548.3	20.3
30°-40°	627.2	23.2
40°-50°	496.5	18.4
50°-60°	270.9	10.0
60°-70°	141.7	5.3
70°-80°	81.8	3.0
80°-90°	31.0	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°	1048.7	38.9
0°-40°	1675.9	62.1
0°-60°	2443.4	90.6
0°-90°	2697.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2697.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1395	1395	1395	1395	1395	
5°	1380	1370	1382	1377	1374	131
15°	1299	1306	1308	1318	1331	366
25°	1172	1174	1190	1206	1218	539
35°	986	986	998	1035	1060	615
45°	660	656	622	653	654	502
55°	253	316	326	304	228	235
65°	83	168	149	160	80	90
75°	63	101	49	99	63	66
85°	25	33	26	34	28	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1395.1	1395.1	1395.1	1395.1	1395.1
2.5°	1389.9	1381.6	1379.6	1383.7	1386.3
5°	1380.1	1370.2	1381.6	1377.0	1373.9
7.5°	1368.7	1365.1	1363.0	1370.2	1368.7
10°	1349.0	1343.8	1349.5	1353.7	1355.7
12.5°	1325.2	1327.8	1328.8	1341.8	1348.0
15°	1298.8	1305.5	1307.6	1317.9	1330.9
17.5°	1271.8	1273.4	1285.8	1299.3	1305.5
20°	1242.3	1244.9	1257.9	1270.3	1280.1
22.5°	1207.6	1210.7	1226.8	1240.8	1249.1
25°	1172.4	1174.0	1190.5	1205.6	1218.5
27.5°	1129.9	1138.2	1148.1	1168.8	1182.8
30°	1089.0	1094.2	1105.6	1128.4	1143.4
32.5°	1040.9	1043.0	1057.5	1082.3	1102.5
35°	986.0	986.0	998.4	1034.7	1059.5
37.5°	931.6	924.4	934.2	975.6	993.2
40°	860.7	855.5	853.9	882.4	893.8
42.5°	773.7	763.8	746.2	775.2	784.5
45°	659.7	656.1	622.5	653.0	654.0
47.5°	540.6	543.2	505.4	536.0	513.2
50°	422.6	449.5	424.6	437.6	387.4
52.5°	328.8	379.1	369.7	364.6	296.2
55°	253.2	316.4	325.7	303.5	227.9
57.5°	193.2	269.8	275.5	260.0	173.5
60°	142.4	227.9	227.9	220.6	132.1
62.5°	106.2	195.7	185.4	187.5	101.0
65°	83.4	167.8	149.1	159.5	80.3
67.5°	69.9	139.8	112.9	137.7	69.9
70°	67.8	121.7	82.3	124.3	67.3
72.5°	67.3	111.9	61.6	112.9	67.8
75°	63.2	101.0	48.7	99.4	62.7
77.5°	58.0	83.9	40.4	83.9	58.5
80°	51.8	63.7	37.8	65.2	54.9
82.5°	39.9	45.6	33.7	46.1	42.5
85°	25.4	33.1	25.9	33.7	28.0
87.5°	11.4	17.6	11.4	18.1	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)