

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: P476003

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476003
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-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: 2749.2 lumens
Efficiency: N/A
Efficacy: 130.9 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

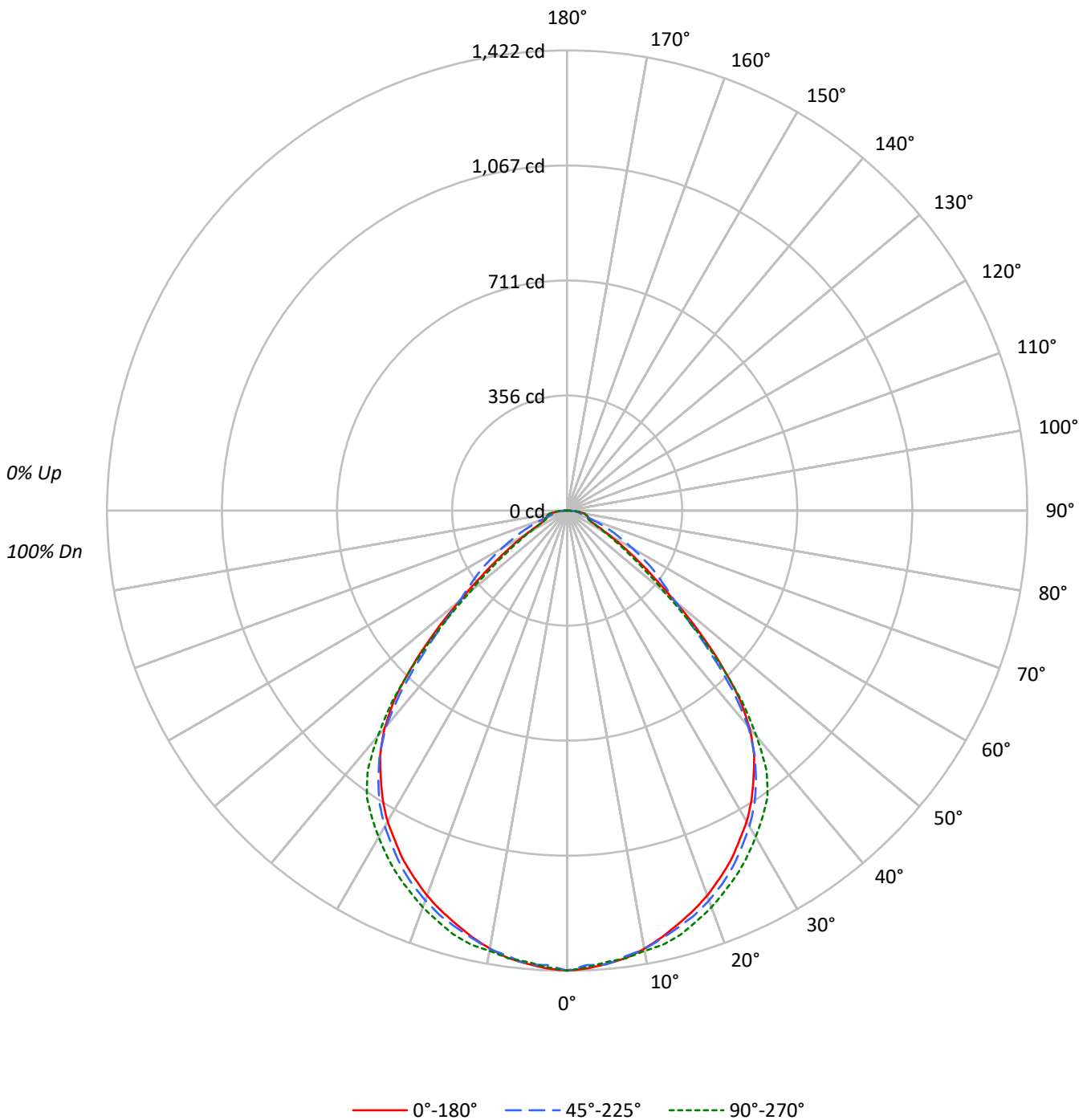
Input Watts (W): 21
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3825	3825	3825
5°	3799	3803	3782
10°	3756	3758	3775
15°	3687	3712	3778
20°	3625	3671	3735
25°	3547	3602	3687
30°	3448	3501	3620
35°	3301	3342	3547
40°	3081	3057	3199
45°	2559	2414	2536
50°	1803	1811	1652
55°	1210	1557	1089
60°	781	1250	724
65°	541	968	521
70°	544	660	540
75°	670	516	664
80°	818	597	866
85°	800	815	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	4.8
10°-20°	376.8	13.7
20°-30°	558.7	20.3
30°-40°	639.2	23.2
40°-50°	506.0	18.4
50°-60°	276.1	10.0
60°-70°	144.4	5.3
70°-80°	83.4	3.0
80°-90°	31.5	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°	1068.6	38.9
0°-40°	1707.8	62.1
0°-60°	2489.8	90.6
0°-90°	2749.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2749.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1422	1422	1422	1422	1422	
5°	1406	1396	1408	1403	1400	133
15°	1323	1330	1332	1343	1356	373
25°	1195	1196	1213	1228	1242	549
35°	1005	1005	1017	1054	1080	627
45°	672	669	634	665	666	511
55°	258	322	332	309	232	239
65°	85	171	152	162	82	92
75°	64	103	50	101	64	67
85°	26	34	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°	1421.6	1421.6	1421.6	1421.6	1421.6
2.5°	1416.3	1407.9	1405.8	1410.0	1412.6
5°	1406.3	1396.3	1407.9	1403.1	1400.0
7.5°	1394.7	1391.0	1388.9	1396.3	1394.7
10°	1374.6	1369.4	1375.2	1379.4	1381.5
12.5°	1350.4	1353.0	1354.1	1367.2	1373.6
15°	1323.4	1330.3	1332.4	1343.0	1356.2
17.5°	1296.0	1297.6	1310.3	1324.0	1330.3
20°	1265.9	1268.6	1281.8	1294.4	1304.4
22.5°	1230.6	1233.7	1250.1	1264.3	1272.8
25°	1194.7	1196.3	1213.2	1228.5	1241.7
27.5°	1151.4	1159.9	1169.9	1191.0	1205.2
30°	1109.7	1115.0	1126.6	1149.8	1165.1
32.5°	1060.7	1062.8	1077.5	1102.9	1123.5
35°	1004.7	1004.7	1017.4	1054.3	1079.7
37.5°	949.3	941.9	952.0	994.2	1012.1
40°	877.0	871.7	870.2	899.2	910.8
42.5°	788.4	778.3	760.4	790.0	799.4
45°	672.3	668.6	634.3	665.4	666.5
47.5°	550.9	553.5	515.0	546.2	522.9
50°	430.6	458.0	432.7	445.9	394.7
52.5°	335.1	386.3	376.8	371.5	301.8
55°	258.0	322.4	331.9	309.2	232.2
57.5°	196.8	274.9	280.7	264.9	176.8
60°	145.1	232.2	232.2	224.8	134.6
62.5°	108.2	199.5	188.9	191.0	102.9
65°	85.0	171.0	152.0	162.5	81.8
67.5°	71.2	142.5	115.0	140.4	71.2
70°	69.1	124.0	83.9	126.6	68.6
72.5°	68.6	114.0	62.8	115.0	69.1
75°	64.4	102.9	49.6	101.3	63.9
77.5°	59.1	85.5	41.2	85.5	59.6
80°	52.8	64.9	38.5	66.5	55.9
82.5°	40.6	46.4	34.3	47.0	43.3
85°	25.9	33.8	26.4	34.3	28.5
87.5°	11.6	17.9	11.6	18.5	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)