

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: P476172

Luminaire Tested: **14GR-LD5-32-F1-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476172
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-32-F1-UNV-L830-CD1-U
Description: GR 1'X4' LED TROFFER w/ F1 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

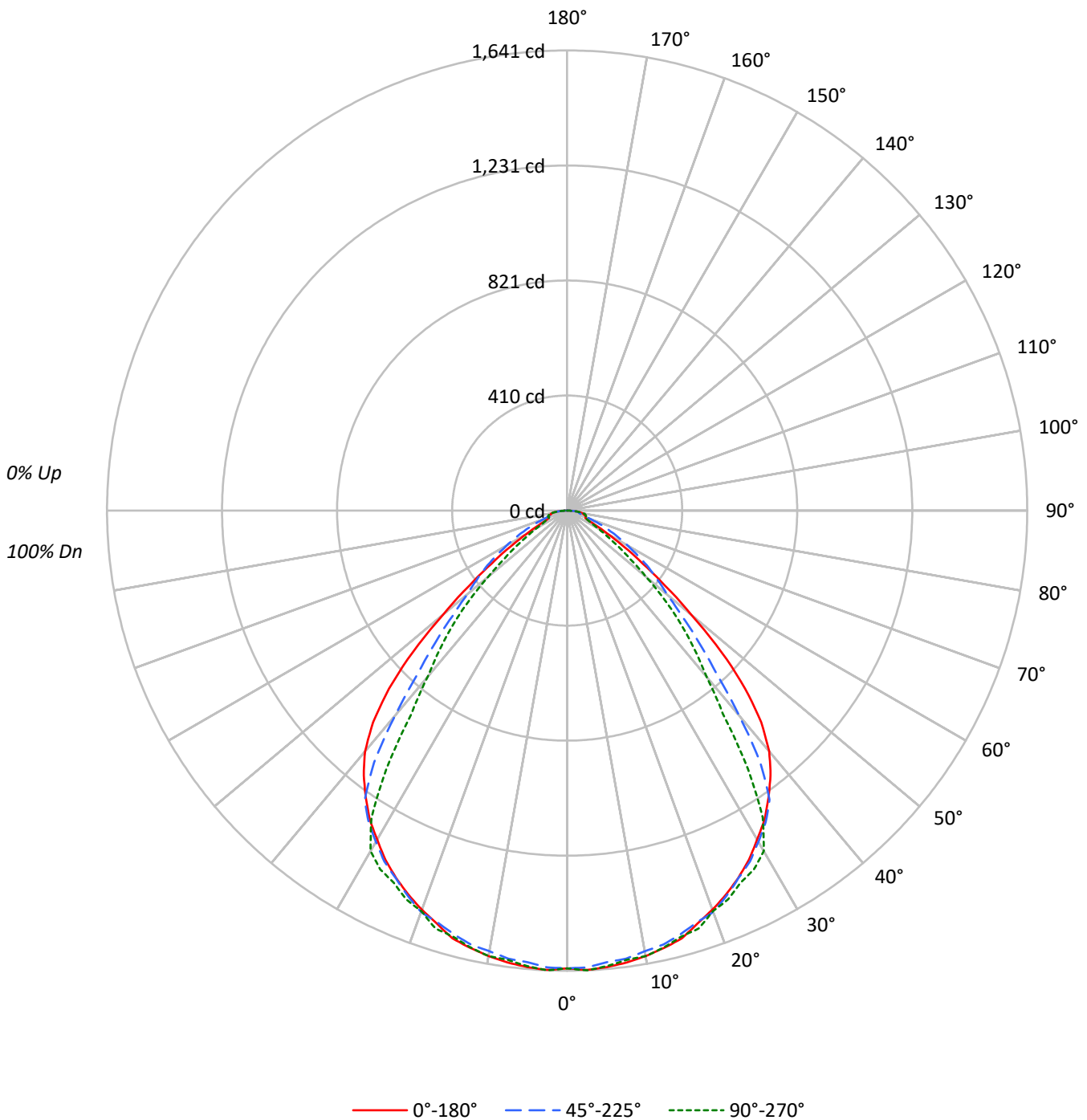
Lumens per Lamp: N/A
Luminaire Lumens: 3138.7 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.2
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25
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	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	82	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54					54			
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	49					49			
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	50	43	39	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4392	4392	4392
5°	4414	4367	4405
10°	4408	4359	4408
15°	4401	4357	4381
20°	4337	4363	4353
25°	4288	4294	4346
30°	4209	4237	4357
35°	4110	4133	3694
40°	3938	3352	2716
45°	3417	2528	2193
50°	2427	1942	1537
55°	1542	1665	1030
60°	908	1334	681
65°	537	1040	526
70°	553	705	539
75°	676	548	712
80°	871	680	953
85°	923	923	923



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.8	4.9
10°-20°	443.2	14.1
20°-30°	670.3	21.4
30°-40°	746.4	23.8
40°-50°	546.3	17.4
50°-60°	301.1	9.6
60°-70°	154.0	4.9
70°-80°	87.6	2.8
80°-90°	34.9	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°	1268.3	40.4
0°-40°	2014.8	64.2
0°-60°	2862.2	91.2
0°-90°	3138.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3138.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1632	1632	1632	1632	1632	
5°	1634	1634	1616	1627	1631	155
15°	1580	1562	1564	1583	1573	444
25°	1444	1441	1446	1471	1464	665
35°	1251	1253	1258	1172	1124	781
45°	898	828	664	604	576	676
55°	329	387	355	304	220	307
65°	84	200	163	156	83	97
75°	65	112	53	100	68	68
85°	30	37	30	40	30	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1632.3	1632.3	1632.3	1632.3	1632.3
2.5°	1639.4	1639.4	1630.6	1641.1	1641.1
5°	1634.1	1634.1	1616.5	1627.1	1630.6
7.5°	1625.3	1625.3	1611.3	1620.0	1616.5
10°	1613.0	1604.2	1595.4	1620.0	1613.0
12.5°	1597.2	1579.6	1584.9	1583.1	1595.4
15°	1579.6	1562.1	1563.8	1583.1	1572.6
17.5°	1544.5	1546.2	1539.2	1553.3	1562.1
20°	1514.6	1519.9	1523.4	1532.2	1519.9
22.5°	1481.2	1483.0	1486.5	1498.8	1500.6
25°	1444.3	1440.8	1446.1	1470.7	1463.7
27.5°	1403.9	1402.2	1411.0	1432.0	1442.6
30°	1354.7	1361.8	1363.5	1402.2	1402.2
32.5°	1309.0	1309.0	1317.8	1337.2	1298.5
35°	1251.1	1252.8	1258.1	1172.0	1124.5
37.5°	1191.3	1186.0	1131.6	975.2	911.9
40°	1121.0	1108.7	954.1	813.5	773.1
42.5°	1024.4	987.5	787.2	702.8	673.0
45°	897.9	827.6	664.2	604.4	576.3
47.5°	746.8	681.8	551.7	511.3	472.7
50°	579.8	565.8	463.9	428.7	367.2
52.5°	441.0	469.1	407.6	362.0	282.9
55°	328.6	386.6	354.9	304.0	219.6
57.5°	240.7	321.5	298.7	258.3	165.2
60°	168.7	272.4	247.8	217.9	126.5
62.5°	119.5	235.5	203.8	186.3	96.6
65°	84.3	200.3	163.4	156.4	82.6
67.5°	70.3	168.7	124.8	138.8	70.3
70°	70.3	140.6	89.6	123.0	68.5
72.5°	70.3	123.0	66.8	112.5	72.0
75°	65.0	112.5	52.7	100.2	68.5
77.5°	59.7	94.9	45.7	86.1	66.8
80°	56.2	68.5	43.9	70.3	61.5
82.5°	45.7	49.2	40.4	54.5	47.4
85°	29.9	36.9	29.9	40.4	29.9
87.5°	14.1	19.3	14.1	17.6	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)