

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: P476180

Luminaire Tested: **14GR-LD5-28-F1-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476180
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-F1-UNV-L835-CD1-U
Description: GR 1'X4' LED TROFFER w/ F1 LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2823.5 lumens
Efficiency: N/A
Efficacy: 121.2 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

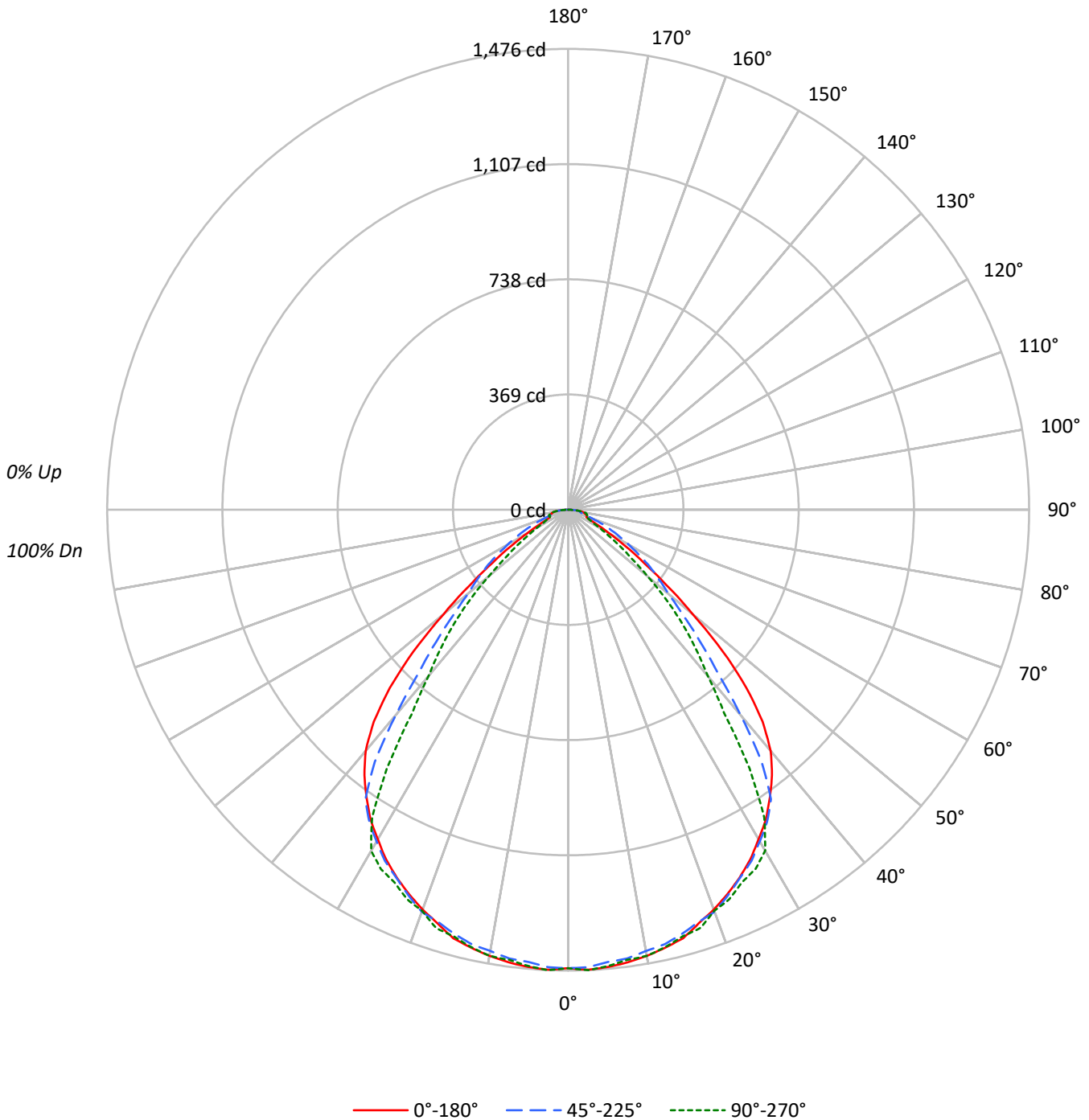
Input Watts (W): 23.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3951	3951	3951
5°	3971	3928	3962
10°	3965	3922	3965
15°	3959	3919	3941
20°	3902	3924	3915
25°	3858	3863	3910
30°	3787	3811	3919
35°	3697	3718	3323
40°	3542	3015	2443
45°	3074	2274	1973
50°	2184	1747	1383
55°	1387	1498	927
60°	816	1200	612
65°	483	936	473
70°	497	634	485
75°	608	493	640
80°	784	612	857
85°	831	831	831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.3	4.9
10°-20°	398.7	14.1
20°-30°	603.0	21.4
30°-40°	671.5	23.8
40°-50°	491.5	17.4
50°-60°	270.9	9.6
60°-70°	138.5	4.9
70°-80°	78.8	2.8
80°-90°	31.4	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°	1140.9	40.4
0°-40°	1812.4	64.2
0°-60°	2574.8	91.2
0°-90°	2823.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2823.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1470	1470	1454	1464	1467	140
15°	1421	1405	1407	1424	1415	399
25°	1299	1296	1301	1323	1317	598
35°	1125	1127	1132	1054	1012	702
45°	808	744	598	544	518	608
55°	296	348	319	273	198	276
65°	76	180	147	141	74	87
75°	58	101	47	90	62	61
85°	27	33	27	36	27	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1468.4	1468.4	1468.4	1468.4	1468.4
2.5°	1474.7	1474.7	1466.8	1476.3	1476.3
5°	1470.0	1470.0	1454.2	1463.7	1466.8
7.5°	1462.1	1462.1	1449.4	1457.3	1454.2
10°	1451.0	1443.1	1435.2	1457.3	1451.0
12.5°	1436.8	1421.0	1425.7	1424.1	1435.2
15°	1421.0	1405.2	1406.8	1424.1	1414.7
17.5°	1389.4	1391.0	1384.6	1397.3	1405.2
20°	1362.5	1367.2	1370.4	1378.3	1367.2
22.5°	1332.5	1334.0	1337.2	1348.3	1349.9
25°	1299.3	1296.1	1300.9	1323.0	1316.7
27.5°	1262.9	1261.3	1269.2	1288.2	1297.7
30°	1218.7	1225.0	1226.6	1261.3	1261.3
32.5°	1177.6	1177.6	1185.5	1202.9	1168.1
35°	1125.4	1127.0	1131.7	1054.3	1011.6
37.5°	1071.7	1066.9	1017.9	877.2	820.3
40°	1008.4	997.4	858.3	731.8	695.5
42.5°	921.5	888.3	708.1	632.3	605.4
45°	807.7	744.5	597.5	543.7	518.4
47.5°	671.8	613.3	496.3	460.0	425.2
50°	521.6	509.0	417.3	385.7	330.4
52.5°	396.7	422.0	366.7	325.6	254.5
55°	295.6	347.7	319.3	273.4	197.6
57.5°	216.5	289.3	268.7	232.4	148.6
60°	151.7	245.0	222.9	196.0	113.8
62.5°	107.5	211.8	183.4	167.5	86.9
65°	75.9	180.2	147.0	140.7	74.3
67.5°	63.2	151.7	112.2	124.9	63.2
70°	63.2	126.5	80.6	110.6	61.6
72.5°	63.2	110.6	60.1	101.2	64.8
75°	58.5	101.2	47.4	90.1	61.6
77.5°	53.7	85.4	41.1	77.5	60.1
80°	50.6	61.6	39.5	63.2	55.3
82.5°	41.1	44.3	36.4	49.0	42.7
85°	26.9	33.2	26.9	36.4	26.9
87.5°	12.6	17.4	12.6	15.8	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)