

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: P476270

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476270
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-A19/156-UNV-L850-CD1-U
Description: GR 1'X4' LED TROFFER w/ A19/156 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2736.1 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.2
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

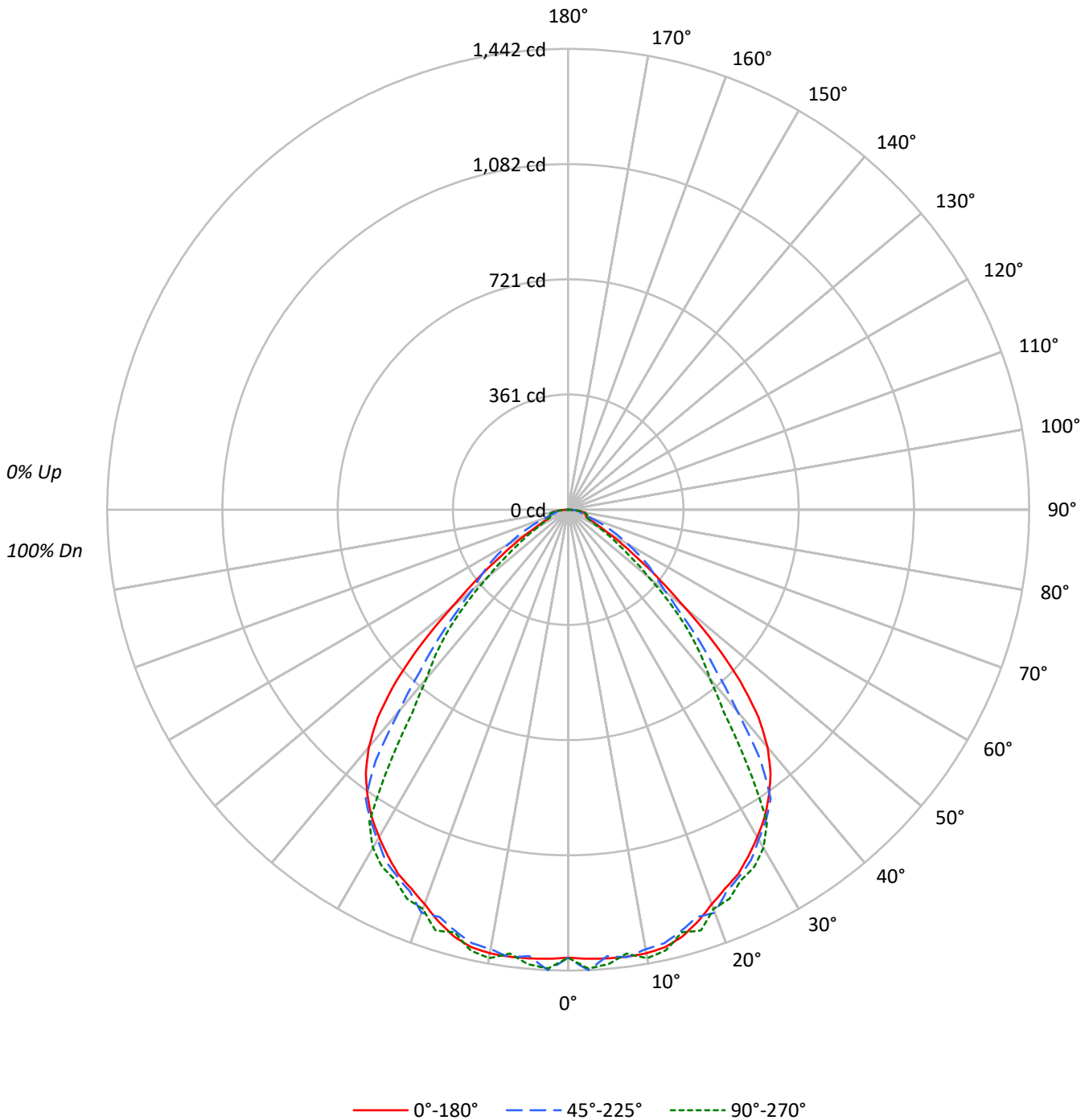
Input Watts (W): 23.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	101	94	89	85	91	87	83	88	84	81	85	82	79	78					78			
3	96	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	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54					54			
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	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	51	43	39	49	43	38	48	43	38	48	42	38	36					36			
10	60	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°	3773	3773	3773
5°	3807	3787	3857
10°	3851	3816	3894
15°	3850	3802	3814
20°	3761	3843	3806
25°	3734	3759	3797
30°	3676	3703	3796
35°	3595	3627	3218
40°	3406	2888	2420
45°	2905	2202	2006
50°	1985	1649	1385
55°	1250	1445	920
60°	756	1156	594
65°	474	894	456
70°	474	597	485
75°	596	476	626
80°	776	576	821
85°	750	797	797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.3	4.9
10°-20°	387.7	14.2
20°-30°	585.2	21.4
30°-40°	652.7	23.9
40°-50°	474.6	17.3
50°-60°	260.3	9.5
60°-70°	132.4	4.8
70°-80°	77.8	2.8
80°-90°	30.1	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°	1108.2	40.5
0°-40°	1760.9	64.4
0°-60°	2495.8	91.2
0°-90°	2736.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2736.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1409	1439	1402	1428	1428	135
15°	1382	1376	1365	1394	1369	388
25°	1258	1258	1266	1290	1279	578
35°	1094	1093	1104	1030	980	681
45°	763	705	579	537	527	574
55°	266	329	308	275	196	251
65°	74	159	140	145	72	83
75°	57	102	46	92	60	60
85°	24	32	26	33	26	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1402.1	1402.1	1402.1	1402.1	1402.1
2.5°	1406.4	1435.1	1442.2	1442.2	1436.5
5°	1409.3	1439.4	1402.1	1427.9	1427.9
7.5°	1410.7	1415.0	1412.1	1417.9	1400.7
10°	1409.3	1399.3	1396.4	1432.2	1425.0
12.5°	1402.1	1363.4	1389.2	1377.8	1412.1
15°	1382.1	1376.3	1364.9	1393.5	1369.2
17.5°	1350.6	1353.4	1336.2	1350.6	1380.6
20°	1313.3	1326.2	1342.0	1346.3	1329.1
22.5°	1283.2	1287.5	1293.3	1307.6	1317.6
25°	1257.5	1257.5	1266.1	1290.4	1278.9
27.5°	1221.7	1224.5	1237.4	1244.6	1260.3
30°	1183.0	1185.9	1191.6	1224.5	1221.7
32.5°	1142.9	1145.8	1151.5	1173.0	1157.2
35°	1094.2	1092.8	1104.2	1029.7	979.6
37.5°	1039.8	1038.3	988.2	847.9	800.6
40°	969.6	963.9	822.1	711.8	688.9
42.5°	880.8	856.5	687.5	623.0	611.5
45°	763.4	704.6	578.6	537.1	527.0
47.5°	624.4	580.0	471.2	452.6	428.2
50°	474.1	476.9	393.9	381.0	330.8
52.5°	362.3	396.7	346.6	322.2	256.4
55°	266.4	329.4	307.9	275.0	196.2
57.5°	197.6	273.5	260.7	236.3	150.4
60°	140.4	227.7	214.8	203.4	110.3
62.5°	101.7	190.5	176.2	171.9	84.5
65°	74.5	159.0	140.4	144.7	71.6
67.5°	60.2	133.2	106.0	126.0	61.6
70°	60.2	118.9	75.9	111.7	61.6
72.5°	60.2	111.7	60.2	101.7	64.4
75°	57.3	101.7	45.8	91.7	60.2
77.5°	53.0	83.1	38.7	78.8	57.3
80°	50.1	61.6	37.2	61.6	53.0
82.5°	38.7	43.0	34.4	45.8	41.5
85°	24.3	31.5	25.8	32.9	25.8
87.5°	11.5	17.2	11.5	17.2	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)