

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: P476261

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P476261  
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-L840-CD1-U  
Description: GR 1'X4' 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: 2733.4 lumens  
Efficiency: N/A  
Efficacy: 117.3 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

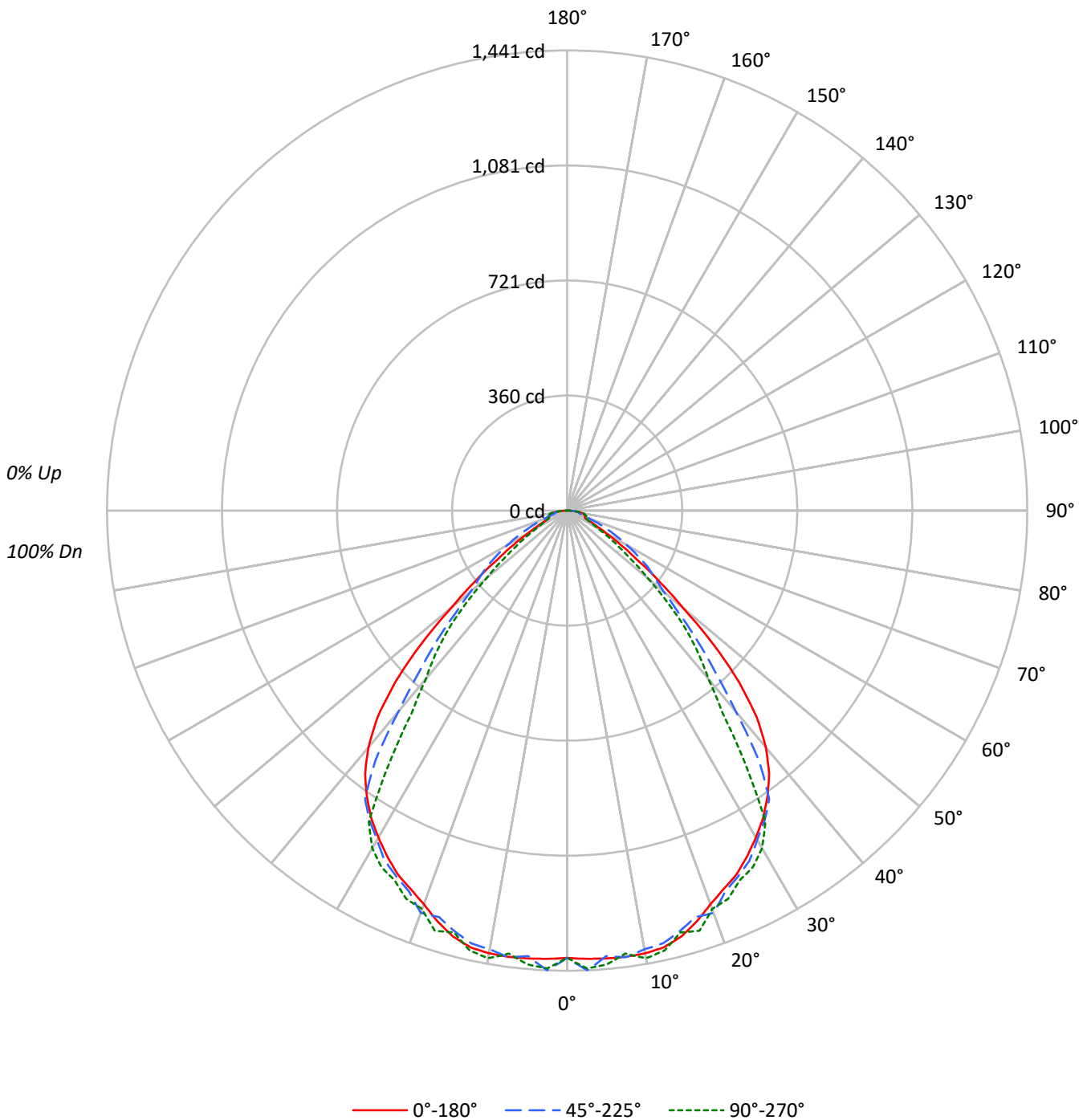
Input Watts (W): 23.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	43	39	49	43	38	48	43	38	48	42	38	36
10	60	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3769	3769	3769
5°	3803	3784	3853
10°	3847	3812	3890
15°	3847	3799	3811
20°	3757	3839	3802
25°	3730	3755	3794
30°	3672	3699	3792
35°	3591	3624	3215
40°	3403	2885	2418
45°	2902	2200	2004
50°	1983	1647	1384
55°	1248	1443	920
60°	755	1155	593
65°	474	893	455
70°	473	596	484
75°	595	476	625
80°	776	576	820
85°	750	797	797



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.1	4.9
10°-20°	387.3	14.2
20°-30°	584.6	21.4
30°-40°	652.0	23.9
40°-50°	474.2	17.3
50°-60°	260.1	9.5
60°-70°	132.2	4.8
70°-80°	77.7	2.8
80°-90°	30.0	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°	1107.1	40.5
0°-40°	1759.1	64.4
0°-60°	2493.4	91.2
0°-90°	2733.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2733.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1401	1401	1401	1401	1401	
5°	1408	1438	1401	1426	1426	134
15°	1381	1375	1364	1392	1368	388
25°	1256	1256	1265	1289	1278	578
35°	1093	1092	1103	1029	979	680
45°	763	704	578	536	526	573
55°	266	329	308	275	196	251
65°	74	159	140	144	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°	1400.7	1400.7	1400.7	1400.7	1400.7
2.5°	1405.0	1433.6	1440.8	1440.8	1435.1
5°	1407.9	1437.9	1400.7	1426.5	1426.5
7.5°	1409.3	1413.6	1410.8	1416.5	1399.3
10°	1407.9	1397.9	1395.0	1430.8	1423.6
12.5°	1400.7	1362.1	1387.9	1376.4	1410.8
15°	1380.7	1375.0	1363.5	1392.2	1367.8
17.5°	1349.2	1352.1	1334.9	1349.2	1379.3
20°	1312.0	1324.9	1340.6	1344.9	1327.8
22.5°	1282.0	1286.3	1292.0	1306.3	1316.3
25°	1256.2	1256.2	1264.8	1289.1	1277.7
27.5°	1220.5	1223.3	1236.2	1243.4	1259.1
30°	1181.8	1184.7	1190.4	1223.3	1220.5
32.5°	1141.8	1144.6	1150.4	1171.8	1156.1
35°	1093.1	1091.7	1103.1	1028.7	978.7
37.5°	1038.8	1037.3	987.2	847.0	799.8
40°	968.6	962.9	821.3	711.1	688.2
42.5°	879.9	855.6	686.8	622.4	610.9
45°	762.6	703.9	578.0	536.5	526.5
47.5°	623.8	579.5	470.7	452.1	427.8
50°	473.6	476.5	393.5	380.6	330.5
52.5°	362.0	396.3	346.3	321.9	256.1
55°	266.1	329.1	307.6	274.7	196.0
57.5°	197.4	273.3	260.4	236.1	150.2
60°	140.2	227.5	214.6	203.2	110.2
62.5°	101.6	190.3	176.0	171.7	84.4
65°	74.4	158.8	140.2	144.5	71.5
67.5°	60.1	133.1	105.9	125.9	61.5
70°	60.1	118.8	75.8	111.6	61.5
72.5°	60.1	111.6	60.1	101.6	64.4
75°	57.2	101.6	45.8	91.6	60.1
77.5°	52.9	83.0	38.6	78.7	57.2
80°	50.1	61.5	37.2	61.5	52.9
82.5°	38.6	42.9	34.3	45.8	41.5
85°	24.3	31.5	25.8	32.9	25.8
87.5°	11.4	17.2	11.4	17.2	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)