

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: P476260

Luminaire Tested: **14GR-LD5-24-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021



Test Information

Test Method: LM-79-08
Report Number: P476260
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-24-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

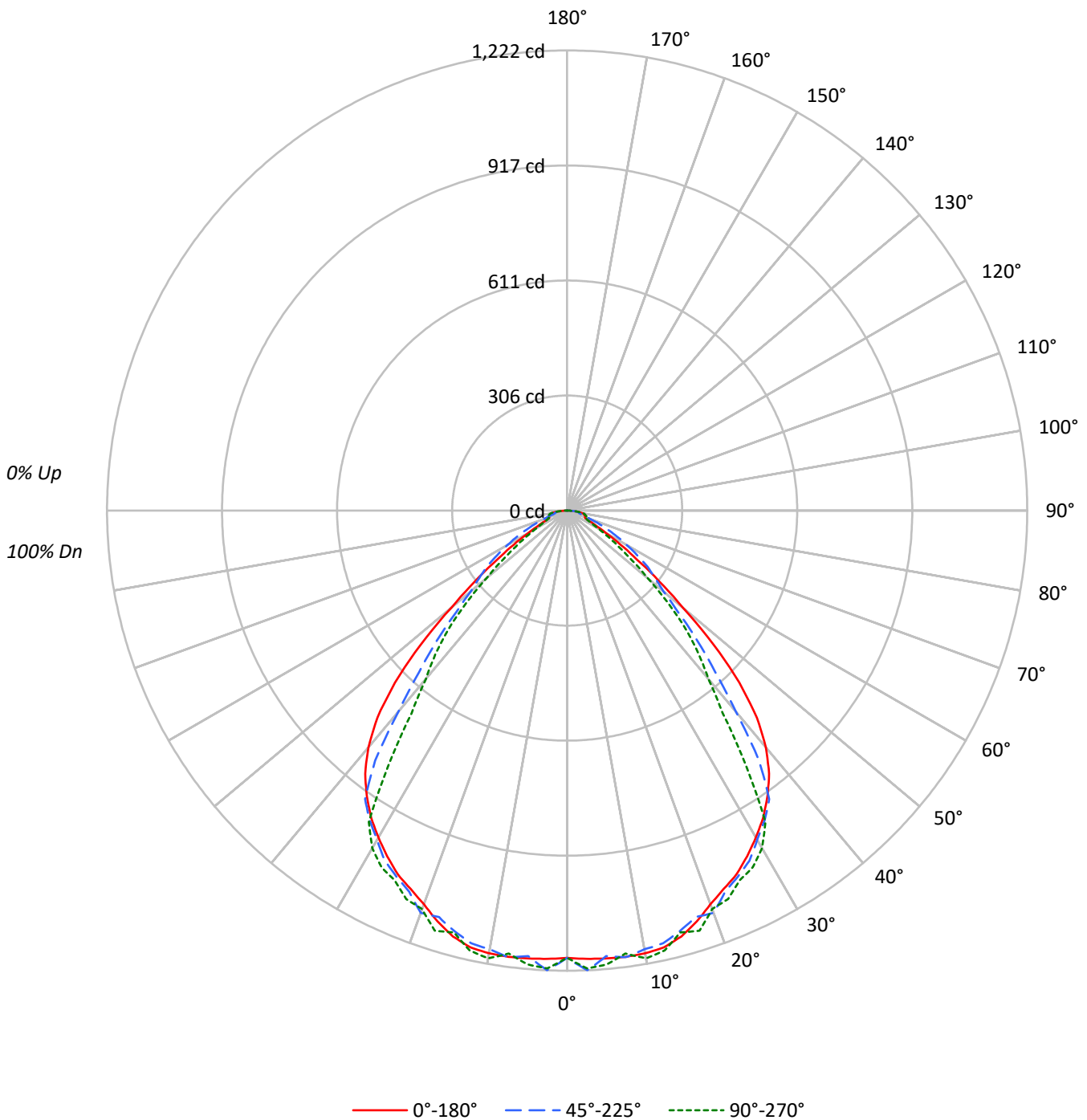
Lumens per Lamp: N/A
Luminaire Lumens: 2318.0 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.2
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 18.5
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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CATALOG NUMBER: 14GR-LD5-24-A19/156-UNV-L840-CD1-U

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°	3197	3197	3197
5°	3225	3209	3268
10°	3262	3233	3299
15°	3262	3221	3232
20°	3186	3256	3225
25°	3163	3185	3217
30°	3114	3137	3216
35°	3045	3073	2726
40°	2885	2447	2050
45°	2461	1866	1699
50°	1681	1397	1173
55°	1059	1224	780
60°	640	980	503
65°	402	757	387
70°	401	506	411
75°	504	403	530
80°	659	488	696
85°	636	673	673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.6	4.9
10°-20°	328.5	14.2
20°-30°	495.8	21.4
30°-40°	553.0	23.9
40°-50°	402.1	17.3
50°-60°	220.5	9.5
60°-70°	112.1	4.8
70°-80°	65.9	2.8
80°-90°	25.5	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°	938.9	40.5
0°-40°	1491.8	64.4
0°-60°	2114.5	91.2
0°-90°	2318.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2318.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1194	1219	1188	1210	1210	114
15°	1171	1166	1156	1181	1160	329
25°	1065	1065	1073	1093	1084	490
35°	927	926	936	872	830	577
45°	647	597	490	455	446	486
55°	226	279	261	233	166	213
65°	63	135	119	122	61	70
75°	48	86	39	78	51	51
85°	21	27	22	28	22	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.9	1187.9	1187.9	1187.9	1187.9
2.5°	1191.5	1215.8	1221.9	1221.9	1217.0
5°	1193.9	1219.4	1187.9	1209.7	1209.7
7.5°	1195.2	1198.8	1196.4	1201.2	1186.7
10°	1193.9	1185.4	1183.0	1213.4	1207.3
12.5°	1187.9	1155.1	1177.0	1167.2	1196.4
15°	1170.9	1166.0	1156.3	1180.6	1160.0
17.5°	1144.2	1146.6	1132.1	1144.2	1169.7
20°	1112.6	1123.6	1136.9	1140.6	1126.0
22.5°	1087.2	1090.8	1095.7	1107.8	1116.3
25°	1065.3	1065.3	1072.6	1093.2	1083.5
27.5°	1035.0	1037.4	1048.3	1054.4	1067.8
30°	1002.2	1004.7	1009.5	1037.4	1035.0
32.5°	968.3	970.7	975.5	993.7	980.4
35°	927.0	925.8	935.5	872.4	829.9
37.5°	880.9	879.7	837.2	718.3	678.3
40°	821.4	816.6	696.5	603.0	583.6
42.5°	746.2	725.6	582.4	527.8	518.1
45°	646.7	597.0	490.2	455.0	446.5
47.5°	529.0	491.4	399.2	383.4	362.8
50°	401.6	404.0	333.7	322.8	280.3
52.5°	307.0	336.1	293.6	273.0	217.2
55°	225.7	279.1	260.9	233.0	166.2
57.5°	167.4	231.8	220.8	200.2	127.4
60°	118.9	192.9	182.0	172.3	93.4
62.5°	86.1	161.4	149.2	145.6	71.6
65°	63.1	134.7	118.9	122.5	60.7
67.5°	51.0	112.8	89.8	106.8	52.2
70°	51.0	100.7	64.3	94.6	52.2
72.5°	51.0	94.6	51.0	86.1	54.6
75°	48.5	86.1	38.8	77.7	51.0
77.5°	44.9	70.4	32.8	66.7	48.5
80°	42.5	52.2	31.5	52.2	44.9
82.5°	32.8	36.4	29.1	38.8	35.2
85°	20.6	26.7	21.8	27.9	21.8
87.5°	9.7	14.6	9.7	14.6	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)