

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: P475679

Luminaire Tested: **24GR-LD5-85-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475679
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-85-A19/156-UNV-L840-CD1-U
Description: GR 2'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: 8265.9 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.28
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

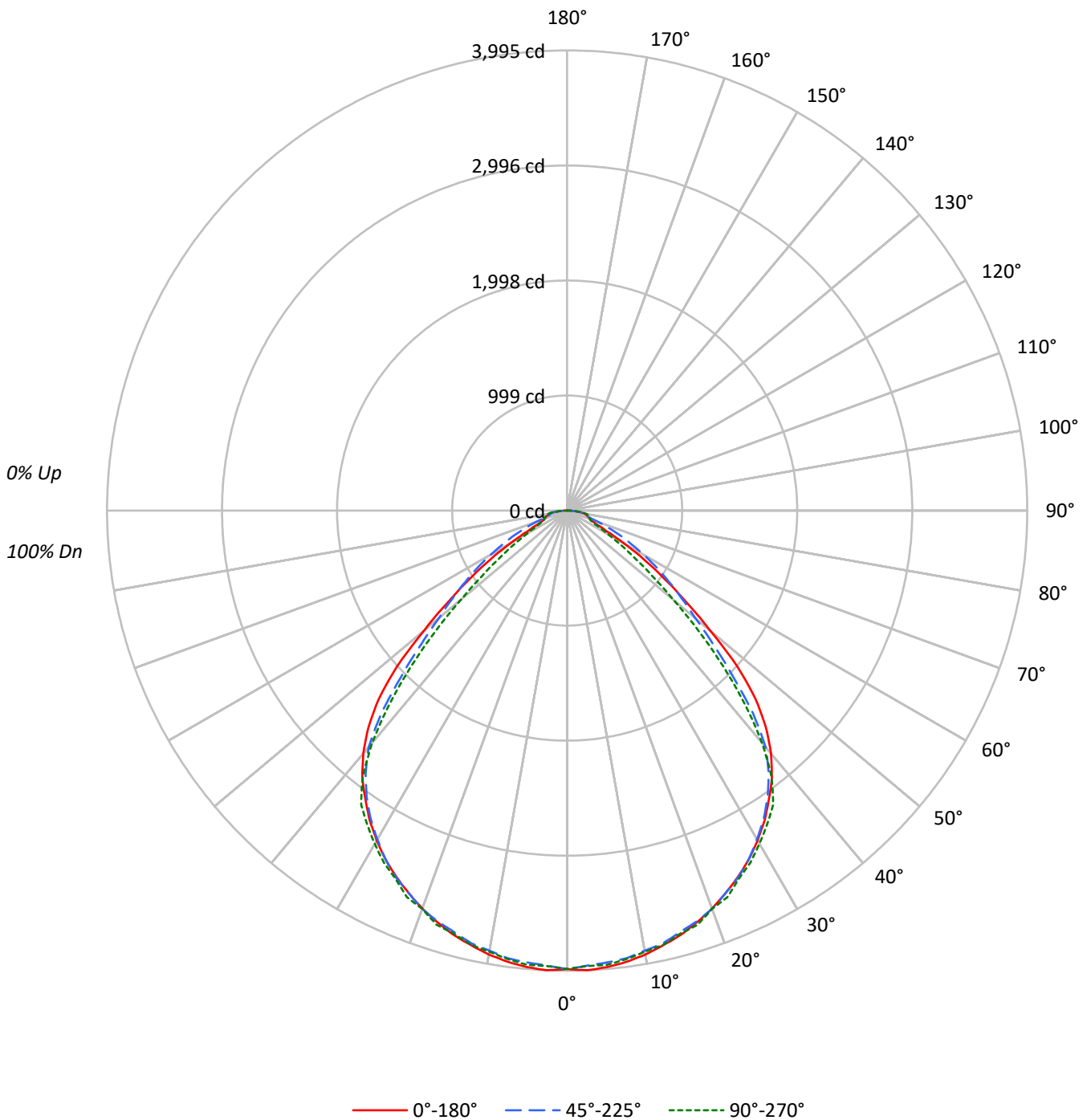
Input Watts (W): 59.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90					88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78					76				
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69					67				
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61					59				
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49					47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44					42				
8	66	54	46	40	65	53	46	40	52	45	40	50	44	40	49	44	40					38				
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36					34				
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5356	5356	5356
5°	5373	5320	5348
10°	5346	5300	5313
15°	5311	5277	5295
20°	5265	5269	5267
25°	5210	5218	5236
30°	5137	5121	5189
35°	5020	4983	5121
40°	4838	4711	4626
45°	4403	3875	3656
50°	3398	3039	2512
55°	2414	2535	1662
60°	1528	2047	1085
65°	887	1610	793
70°	821	1109	841
75°	945	844	1002
80°	1180	1167	1323
85°	1286	1365	1416



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	375.1	4.5
10°-20°	1072.9	13.0
20°-30°	1618.9	19.6
30°-40°	1900.2	23.0
40°-50°	1599.7	19.4
50°-60°	908.7	11.0
60°-70°	453.5	5.5
70°-80°	237.8	2.9
80°-90°	99.1	1.2
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°	3066.9	37.1
0°-40°	4967.0	60.1
0°-60°	7475.4	90.4
0°-90°	8265.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8265.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3980	3980	3980	3980	3980	
5°	3978	3949	3939	3946	3959	378
15°	3813	3804	3788	3799	3801	1075
25°	3509	3511	3515	3524	3527	1616
35°	3056	3040	3034	3085	3118	1909
45°	2314	2222	2036	2001	1921	1743
55°	1029	1101	1080	932	709	936
65°	278	577	506	429	249	317
75°	182	280	162	244	193	193
85°	83	99	88	112	92	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3980.4	3980.4	3980.4	3980.4	3980.4
2.5°	3994.7	3975.3	3953.4	3947.5	3957.6
5°	3977.8	3949.2	3939.1	3945.9	3959.3
7.5°	3951.7	3922.3	3920.6	3908.8	3929.0
10°	3913.0	3893.7	3879.4	3886.1	3888.6
12.5°	3864.2	3858.3	3847.4	3838.1	3860.9
15°	3812.9	3803.6	3788.5	3798.6	3801.1
17.5°	3747.3	3742.2	3739.7	3747.3	3769.1
20°	3677.4	3677.4	3679.9	3681.6	3678.3
22.5°	3594.1	3591.6	3594.9	3601.7	3633.7
25°	3509.1	3510.8	3515.0	3524.3	3526.8
27.5°	3414.9	3415.7	3414.0	3423.3	3445.2
30°	3306.3	3302.9	3296.2	3316.4	3340.0
32.5°	3188.5	3181.8	3174.2	3205.3	3230.6
35°	3056.4	3039.5	3033.7	3085.0	3117.8
37.5°	2920.9	2886.4	2873.8	2911.6	2915.8
40°	2754.3	2702.9	2681.9	2644.9	2633.9
42.5°	2554.0	2501.0	2387.4	2330.1	2289.8
45°	2314.2	2221.6	2036.5	2001.1	1921.2
47.5°	2004.5	1906.0	1720.9	1645.2	1554.3
50°	1623.3	1566.1	1451.6	1357.4	1200.0
52.5°	1297.6	1309.4	1255.5	1125.1	929.9
55°	1029.2	1100.7	1080.5	931.6	708.6
57.5°	791.9	945.9	921.5	766.6	541.1
60°	568.0	810.4	760.7	631.1	403.1
62.5°	389.6	691.7	623.6	520.9	308.8
65°	278.5	577.3	505.7	429.2	249.1
67.5°	228.9	472.1	387.9	364.4	217.1
70°	208.7	380.4	281.9	318.1	213.7
72.5°	198.6	318.9	207.0	278.5	203.6
75°	181.8	280.2	162.4	244.0	192.7
77.5°	168.3	242.4	151.5	213.7	187.7
80°	152.3	191.9	150.6	180.9	170.8
82.5°	122.9	139.7	127.1	148.1	138.0
85°	83.3	99.3	88.4	111.9	91.7
87.5°	41.2	48.8	39.6	53.0	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)