

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: P475685

Luminaire Tested: **24GR-LD5-180-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475685
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-180-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: 17488.1 lumens
Efficiency: N/A
Efficacy: 138.5 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

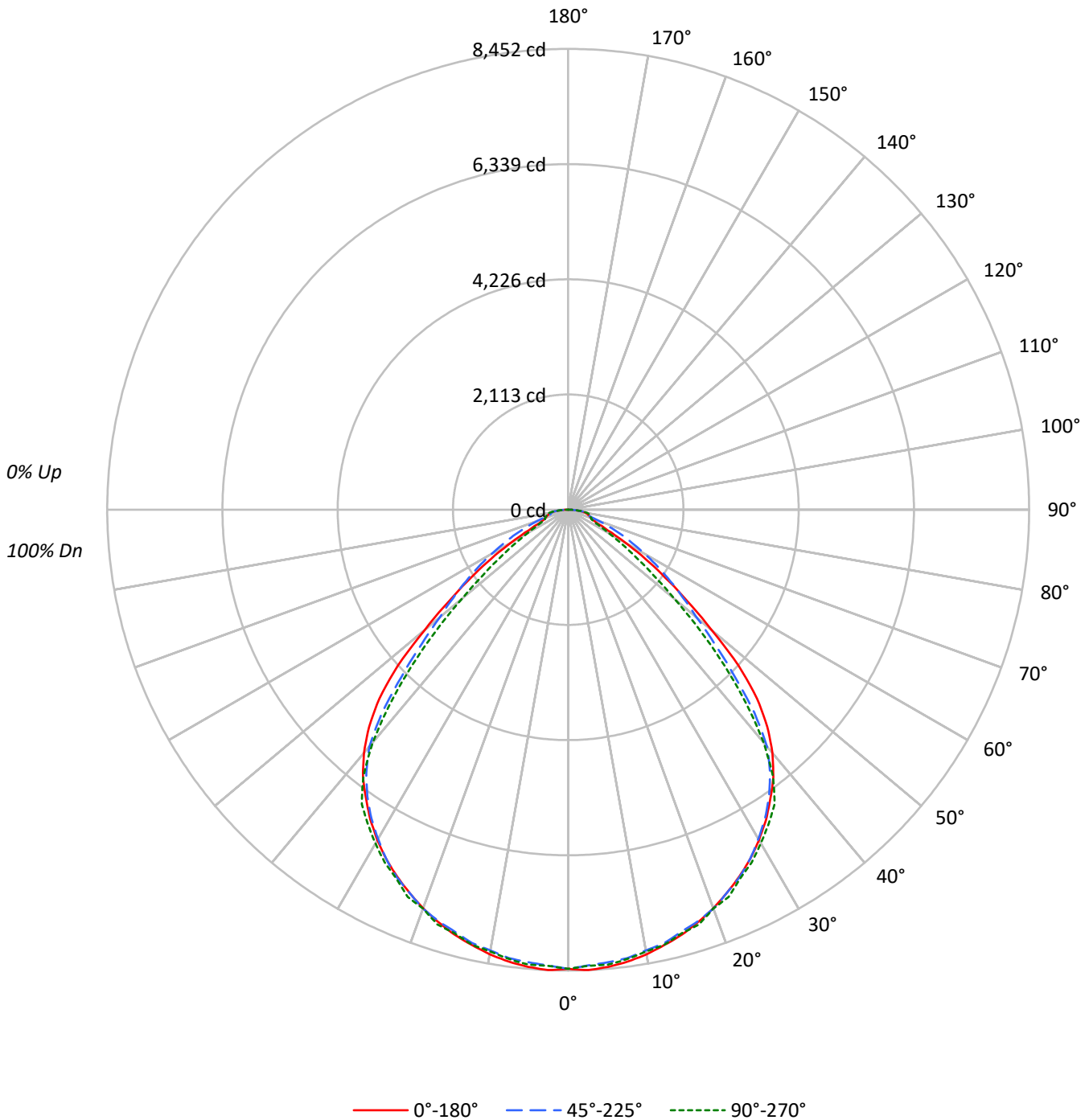
Input Watts (W): 126.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475685

CATALOG NUMBER: 24GR-LD5-180-A19/156-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475685

CATALOG NUMBER: 24GR-LD5-180-A19/156-UNV-L840-CD1-U

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°	11331	11331	11331
5°	11367	11256	11314
10°	11311	11214	11240
15°	11237	11165	11202
20°	11140	11148	11143
25°	11022	11040	11077
30°	10868	10835	10979
35°	10621	10542	10835
40°	10235	9966	9788
45°	9316	8198	7734
50°	7189	6429	5314
55°	5108	5362	3517
60°	3234	4331	2295
65°	1876	3407	1678
70°	1737	2346	1779
75°	1999	1786	2119
80°	2497	2469	2800
85°	2722	2885	2996



TEST NUMBER: P475685

CATALOG NUMBER: 24GR-LD5-180-A19/156-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	793.6	4.5
10°-20°	2269.9	13.0
20°-30°	3425.0	19.6
30°-40°	4020.2	23.0
40°-50°	3384.5	19.4
50°-60°	1922.5	11.0
60°-70°	959.5	5.5
70°-80°	503.1	2.9
80°-90°	209.7	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°	6488.6	37.1
0°-40°	10508.8	60.1
0°-60°	15815.7	90.4
0°-90°	17488.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17488.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8421	8421	8421	8421	8421	
5°	8416	8355	8334	8348	8377	799
15°	8067	8047	8015	8037	8042	2275
25°	7424	7428	7437	7456	7462	3419
35°	6466	6431	6418	6527	6596	4038
45°	4896	4700	4308	4234	4065	3687
55°	2177	2329	2286	1971	1499	1981
65°	589	1221	1070	908	527	670
75°	385	593	344	516	408	408
85°	176	210	187	237	194	186
90°	0	0	0	0	0	



TEST NUMBER: P475685

CATALOG NUMBER: 24GR-LD5-180-A19/156-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8421.3	8421.3	8421.3	8421.3	8421.3
2.5°	8451.5	8410.6	8364.3	8351.8	8373.2
5°	8415.9	8355.4	8334.0	8348.3	8376.7
7.5°	8360.7	8298.4	8294.8	8269.9	8312.7
10°	8278.8	8237.9	8207.6	8221.9	8227.2
12.5°	8175.6	8163.1	8140.0	8120.4	8168.4
15°	8067.0	8047.4	8015.3	8036.7	8042.0
17.5°	7928.1	7917.4	7912.1	7928.1	7974.4
20°	7780.3	7780.3	7785.7	7789.2	7782.1
22.5°	7604.1	7598.7	7605.8	7620.1	7687.7
25°	7424.2	7427.8	7436.7	7456.3	7461.6
27.5°	7224.8	7226.6	7223.1	7242.6	7288.9
30°	6995.2	6988.0	6973.8	7016.5	7066.4
32.5°	6745.9	6731.7	6715.6	6781.5	6834.9
35°	6466.4	6430.8	6418.3	6526.9	6596.4
37.5°	6179.7	6106.7	6080.0	6160.2	6169.1
40°	5827.2	5718.6	5674.1	5595.8	5572.6
42.5°	5403.5	5291.3	5051.0	4929.9	4844.4
45°	4896.1	4700.2	4308.5	4233.8	4064.6
47.5°	4240.9	4032.6	3640.9	3480.7	3288.4
50°	3434.4	3313.3	3071.2	2871.8	2538.8
52.5°	2745.4	2770.3	2656.3	2380.4	1967.3
55°	2177.4	2328.8	2286.0	1970.9	1499.1
57.5°	1675.3	2001.2	1949.5	1621.9	1144.8
60°	1201.8	1714.5	1609.5	1335.3	852.8
62.5°	824.3	1463.5	1319.3	1102.1	653.4
65°	589.3	1221.3	1070.0	908.0	527.0
67.5°	484.3	998.8	820.8	770.9	459.3
70°	441.5	804.7	596.4	673.0	452.2
72.5°	420.2	674.8	438.0	589.3	430.9
75°	384.6	592.9	343.6	516.3	407.7
77.5°	356.1	512.8	320.5	452.2	397.0
80°	322.3	405.9	318.7	382.8	361.4
82.5°	259.9	295.5	268.8	313.3	292.0
85°	176.3	210.1	186.9	236.8	194.1
87.5°	87.2	103.3	83.7	112.2	85.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)