

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: P475674

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475674
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-42-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: 4151.8 lumens
Efficiency: N/A
Efficacy: 137.0 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

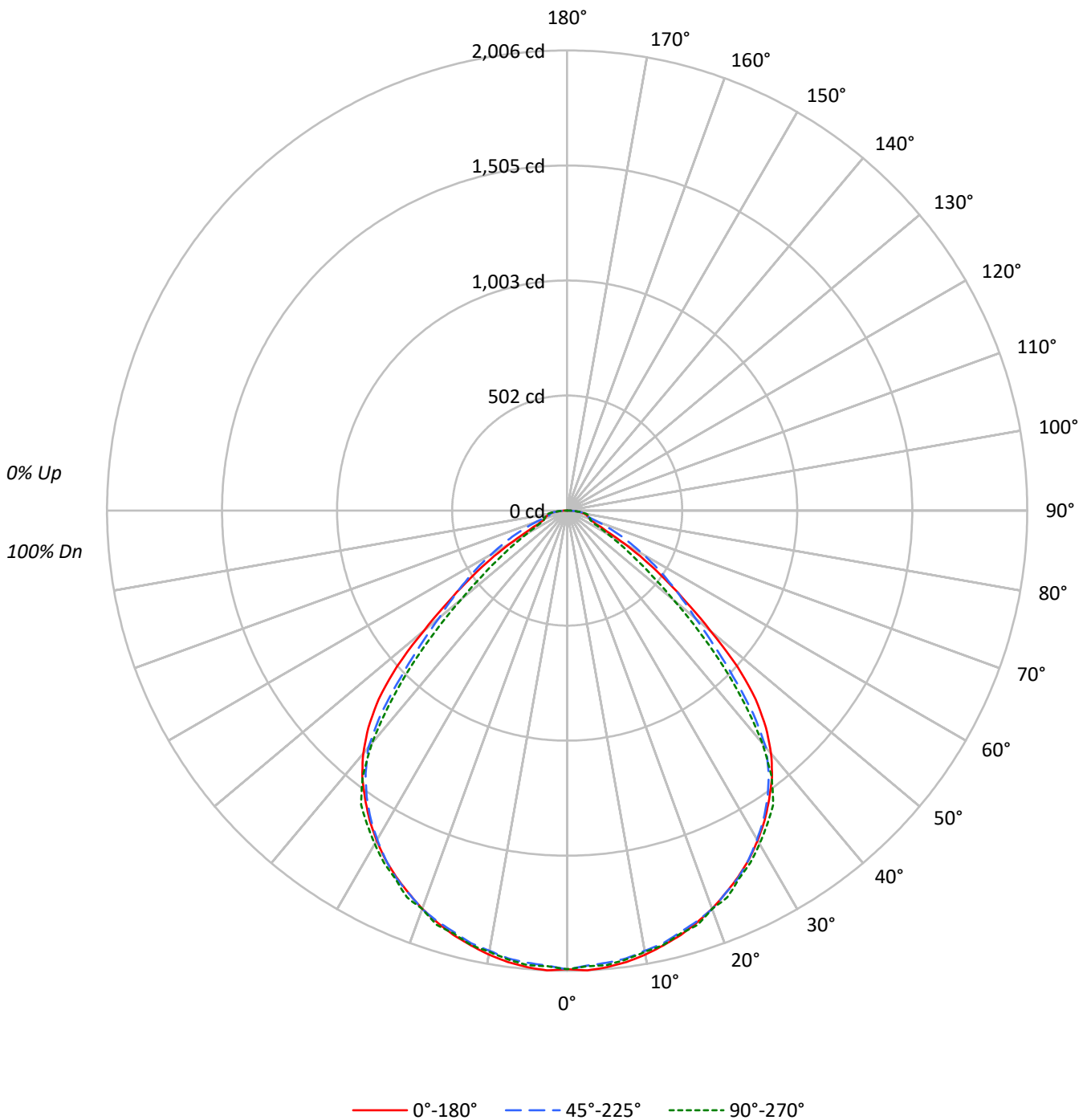
Input Watts (W): 30.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2690	2690	2690
5°	2699	2672	2686
10°	2685	2662	2669
15°	2668	2651	2659
20°	2645	2647	2645
25°	2617	2621	2630
30°	2580	2572	2606
35°	2522	2503	2572
40°	2430	2366	2324
45°	2212	1946	1836
50°	1707	1526	1262
55°	1213	1273	835
60°	768	1028	545
65°	445	809	398
70°	412	557	423
75°	475	424	503
80°	593	587	665
85°	645	685	712



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.4	4.5
10°-20°	538.9	13.0
20°-30°	813.1	19.6
30°-40°	954.4	23.0
40°-50°	803.5	19.4
50°-60°	456.4	11.0
60°-70°	227.8	5.5
70°-80°	119.5	2.9
80°-90°	49.8	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°	1540.4	37.1
0°-40°	2494.9	60.1
0°-60°	3754.8	90.4
0°-90°	4151.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4151.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1999	1999	1999	1999	1999	
5°	1998	1984	1979	1982	1989	190
15°	1915	1910	1903	1908	1909	540
25°	1763	1763	1766	1770	1771	812
35°	1535	1527	1524	1550	1566	959
45°	1162	1116	1023	1005	965	875
55°	517	553	543	468	356	470
65°	140	290	254	216	125	159
75°	91	141	82	123	97	97
85°	42	50	44	56	46	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1999.3	1999.3	1999.3	1999.3	1999.3
2.5°	2006.5	1996.7	1985.7	1982.8	1987.9
5°	1998.0	1983.6	1978.6	1981.9	1988.7
7.5°	1984.9	1970.1	1969.3	1963.3	1973.5
10°	1965.5	1955.7	1948.5	1951.9	1953.2
12.5°	1940.9	1938.0	1932.5	1927.8	1939.2
15°	1915.2	1910.5	1902.9	1908.0	1909.2
17.5°	1882.2	1879.6	1878.4	1882.2	1893.2
20°	1847.1	1847.1	1848.4	1849.2	1847.5
22.5°	1805.3	1804.0	1805.7	1809.1	1825.1
25°	1762.6	1763.4	1765.5	1770.2	1771.4
27.5°	1715.2	1715.7	1714.8	1719.5	1730.4
30°	1660.7	1659.0	1655.6	1665.8	1677.6
32.5°	1601.5	1598.1	1594.3	1610.0	1622.7
35°	1535.2	1526.7	1523.8	1549.5	1566.0
37.5°	1467.1	1449.8	1443.4	1462.5	1464.6
40°	1383.4	1357.6	1347.1	1328.5	1323.0
42.5°	1282.8	1256.2	1199.1	1170.4	1150.1
45°	1162.4	1115.9	1022.9	1005.1	965.0
47.5°	1006.8	957.4	864.4	826.3	780.7
50°	815.3	786.6	729.1	681.8	602.7
52.5°	651.8	657.7	630.6	565.1	467.1
55°	516.9	552.9	542.7	467.9	355.9
57.5°	397.7	475.1	462.8	385.1	271.8
60°	285.3	407.0	382.1	317.0	202.5
62.5°	195.7	347.4	313.2	261.6	155.1
65°	139.9	290.0	254.0	215.6	125.1
67.5°	115.0	237.1	194.9	183.0	109.1
70°	104.8	191.1	141.6	159.8	107.4
72.5°	99.8	160.2	104.0	139.9	102.3
75°	91.3	140.8	81.6	122.6	96.8
77.5°	84.5	121.7	76.1	107.4	94.3
80°	76.5	96.4	75.7	90.9	85.8
82.5°	61.7	70.2	63.8	74.4	69.3
85°	41.8	49.9	44.4	56.2	46.1
87.5°	20.7	24.5	19.9	26.6	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)