

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: P475675

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475675
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-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: 4700.7 lumens
Efficiency: N/A
Efficacy: 142.4 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

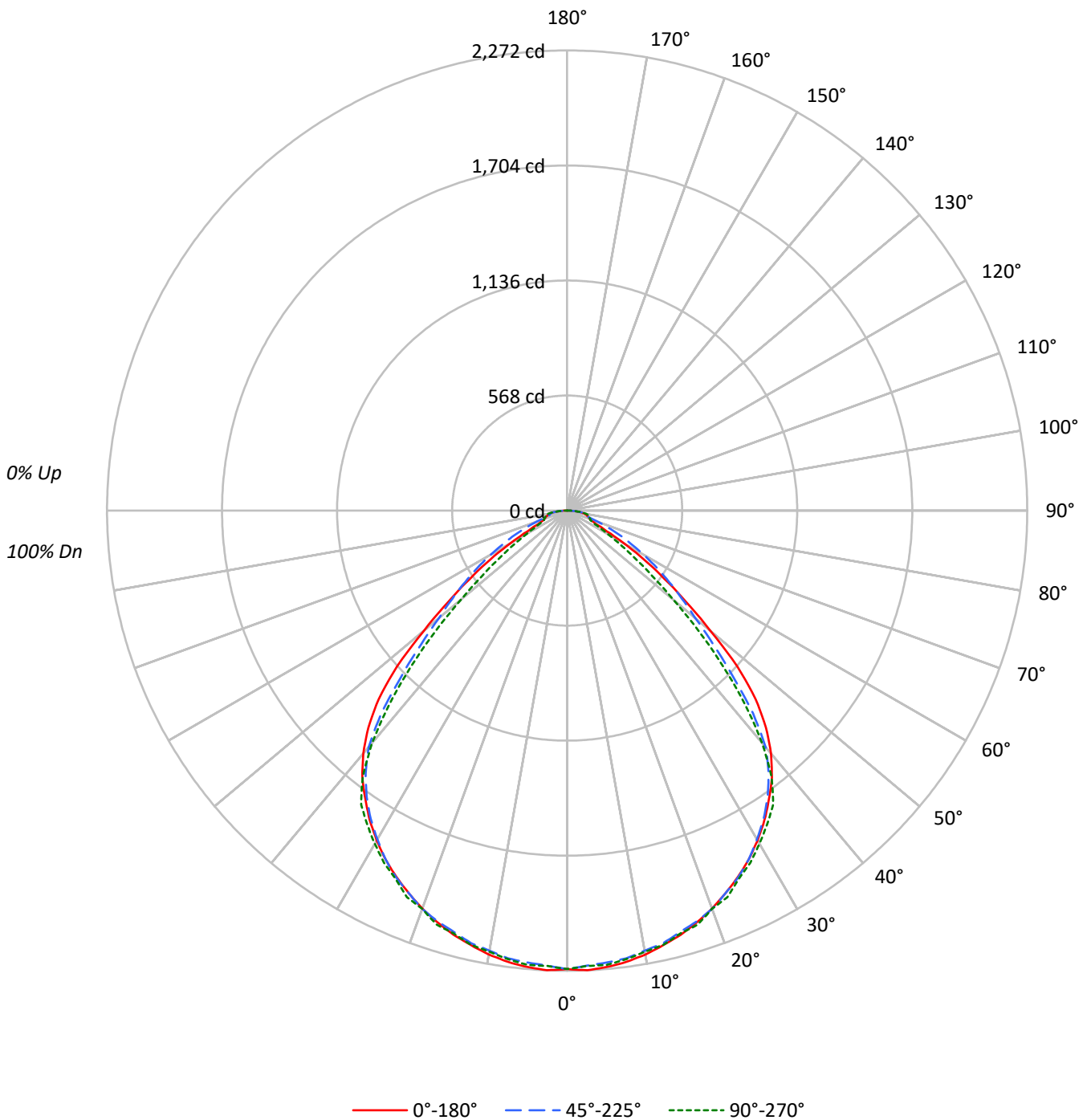
Input Watts (W): 33
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3046	3046	3046
5°	3055	3026	3041
10°	3040	3014	3021
15°	3020	3001	3011
20°	2994	2996	2995
25°	2963	2968	2977
30°	2921	2912	2951
35°	2855	2834	2912
40°	2751	2679	2631
45°	2504	2204	2079
50°	1932	1728	1428
55°	1373	1441	945
60°	869	1164	617
65°	504	916	451
70°	467	631	478
75°	538	480	570
80°	671	664	752
85°	732	775	806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.3	4.5
10°-20°	610.1	13.0
20°-30°	920.6	19.6
30°-40°	1080.6	23.0
40°-50°	909.7	19.4
50°-60°	516.8	11.0
60°-70°	257.9	5.5
70°-80°	135.2	2.9
80°-90°	56.4	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°	1744.1	37.1
0°-40°	2824.7	60.1
0°-60°	4251.1	90.4
0°-90°	4700.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4700.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2264	2264	2264	2264	2264	
5°	2262	2246	2240	2244	2252	215
15°	2168	2163	2154	2160	2162	611
25°	1996	1996	1999	2004	2006	919
35°	1738	1728	1725	1754	1773	1085
45°	1316	1263	1158	1138	1092	991
55°	585	626	614	530	403	532
65°	158	328	288	244	142	180
75°	103	159	92	139	110	110
85°	47	56	50	64	52	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2263.6	2263.6	2263.6	2263.6	2263.6
2.5°	2271.7	2260.7	2248.3	2244.9	2250.6
5°	2262.1	2245.9	2240.1	2243.9	2251.6
7.5°	2247.3	2230.5	2229.6	2222.9	2234.4
10°	2225.3	2214.3	2206.1	2210.0	2211.4
12.5°	2197.5	2194.2	2188.0	2182.7	2195.6
15°	2168.3	2163.1	2154.5	2160.2	2161.6
17.5°	2131.0	2128.1	2126.7	2131.0	2143.5
20°	2091.3	2091.3	2092.7	2093.7	2091.8
22.5°	2043.9	2042.5	2044.4	2048.2	2066.4
25°	1995.6	1996.5	1998.9	2004.2	2005.6
27.5°	1942.0	1942.5	1941.5	1946.8	1959.2
30°	1880.2	1878.3	1874.5	1886.0	1899.4
32.5°	1813.2	1809.4	1805.1	1822.8	1837.2
35°	1738.1	1728.5	1725.2	1754.4	1773.0
37.5°	1661.1	1641.4	1634.3	1655.8	1658.2
40°	1566.3	1537.1	1525.2	1504.1	1497.9
42.5°	1452.4	1422.3	1357.7	1325.1	1302.1
45°	1316.0	1263.4	1158.1	1138.0	1092.5
47.5°	1139.9	1083.9	978.6	935.6	883.9
50°	923.1	890.6	825.5	771.9	682.4
52.5°	737.9	744.6	714.0	639.8	528.8
55°	585.3	626.0	614.5	529.8	402.9
57.5°	450.3	537.9	524.0	436.0	307.7
60°	323.0	460.8	432.6	358.9	229.2
62.5°	221.6	393.4	354.6	296.2	175.6
65°	158.4	328.3	287.6	244.1	141.7
67.5°	130.2	268.5	220.6	207.2	123.5
70°	118.7	216.3	160.3	180.9	121.6
72.5°	112.9	181.4	117.7	158.4	115.8
75°	103.4	159.4	92.4	138.8	109.6
77.5°	95.7	137.8	86.1	121.6	106.7
80°	86.6	109.1	85.7	102.9	97.1
82.5°	69.9	79.4	72.3	84.2	78.5
85°	47.4	56.5	50.2	63.6	52.2
87.5°	23.4	27.8	22.5	30.1	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)