

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: P475690

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475690
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-L850-CD1-U
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4705.3 lumens
Efficiency: N/A
Efficacy: 142.6 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

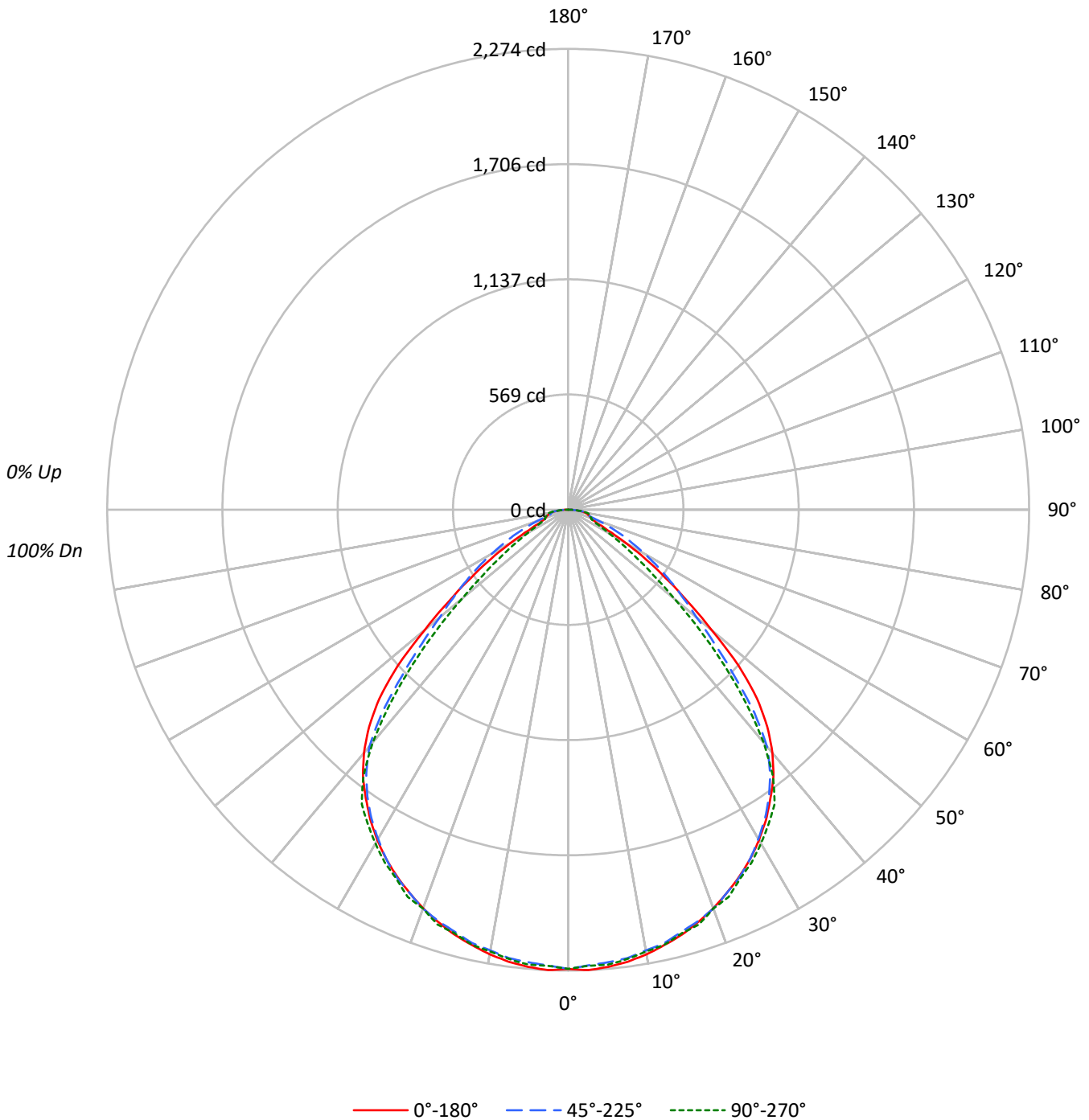
Input Watts (W): 33
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3049	3049	3049
5°	3058	3029	3044
10°	3043	3017	3024
15°	3023	3004	3014
20°	2997	2999	2998
25°	2965	2971	2980
30°	2924	2915	2954
35°	2858	2837	2915
40°	2754	2682	2633
45°	2507	2206	2081
50°	1934	1730	1430
55°	1374	1443	946
60°	870	1165	618
65°	505	917	451
70°	467	631	479
75°	538	481	570
80°	672	664	753
85°	732	777	806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.5	4.5
10°-20°	610.7	13.0
20°-30°	921.5	19.6
30°-40°	1081.7	23.0
40°-50°	910.6	19.4
50°-60°	517.3	11.0
60°-70°	258.2	5.5
70°-80°	135.4	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°	1745.8	37.1
0°-40°	2827.4	60.1
0°-60°	4255.3	90.4
0°-90°	4705.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4705.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2266	2266	2266	2266	2266	
5°	2264	2248	2242	2246	2254	215
15°	2170	2165	2157	2162	2164	612
25°	1998	1998	2001	2006	2008	920
35°	1740	1730	1727	1756	1775	1087
45°	1317	1265	1159	1139	1094	992
55°	586	627	615	530	403	533
65°	159	329	288	244	142	180
75°	104	160	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°	2265.8	2265.8	2265.8	2265.8	2265.8
2.5°	2273.9	2262.9	2250.5	2247.1	2252.9
5°	2264.4	2248.1	2242.3	2246.1	2253.8
7.5°	2249.5	2232.7	2231.8	2225.1	2236.6
10°	2227.5	2216.4	2208.3	2212.1	2213.6
12.5°	2199.7	2196.3	2190.1	2184.8	2197.8
15°	2170.5	2165.2	2156.6	2162.3	2163.8
17.5°	2133.1	2130.2	2128.8	2133.1	2145.6
20°	2093.3	2093.3	2094.8	2095.7	2093.8
22.5°	2045.9	2044.5	2046.4	2050.2	2068.4
25°	1997.5	1998.5	2000.9	2006.2	2007.6
27.5°	1943.9	1944.4	1943.4	1948.7	1961.1
30°	1882.1	1880.2	1876.3	1887.8	1901.3
32.5°	1815.0	1811.2	1806.9	1824.6	1839.0
35°	1739.8	1730.2	1726.9	1756.1	1774.8
37.5°	1662.7	1643.1	1635.9	1657.4	1659.8
40°	1567.8	1538.6	1526.7	1505.6	1499.3
42.5°	1453.8	1423.7	1359.0	1326.4	1303.4
45°	1317.3	1264.6	1159.2	1139.1	1093.6
47.5°	1141.0	1085.0	979.6	936.5	884.8
50°	924.0	891.5	826.3	772.7	683.1
52.5°	738.7	745.4	714.7	640.5	529.3
55°	585.8	626.6	615.1	530.3	403.3
57.5°	450.8	538.4	524.5	436.4	308.0
60°	323.3	461.3	433.0	359.3	229.5
62.5°	221.8	393.8	355.0	296.5	175.8
65°	158.6	328.6	287.9	244.3	141.8
67.5°	130.3	268.7	220.8	207.4	123.6
70°	118.8	216.5	160.5	181.1	121.7
72.5°	113.0	181.6	117.8	158.6	115.9
75°	103.5	159.5	92.5	138.9	109.7
77.5°	95.8	138.0	86.2	121.7	106.8
80°	86.7	109.2	85.7	103.0	97.2
82.5°	69.9	79.5	72.3	84.3	78.6
85°	47.4	56.5	50.3	63.7	52.2
87.5°	23.5	27.8	22.5	30.2	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)