

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: P475540

Luminaire Tested: **24GR-LD5-48-F1-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475540
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-F1-UNV-L835-CD1-U
Description: GR 2'X4' LED TROFFER w/ F1 LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

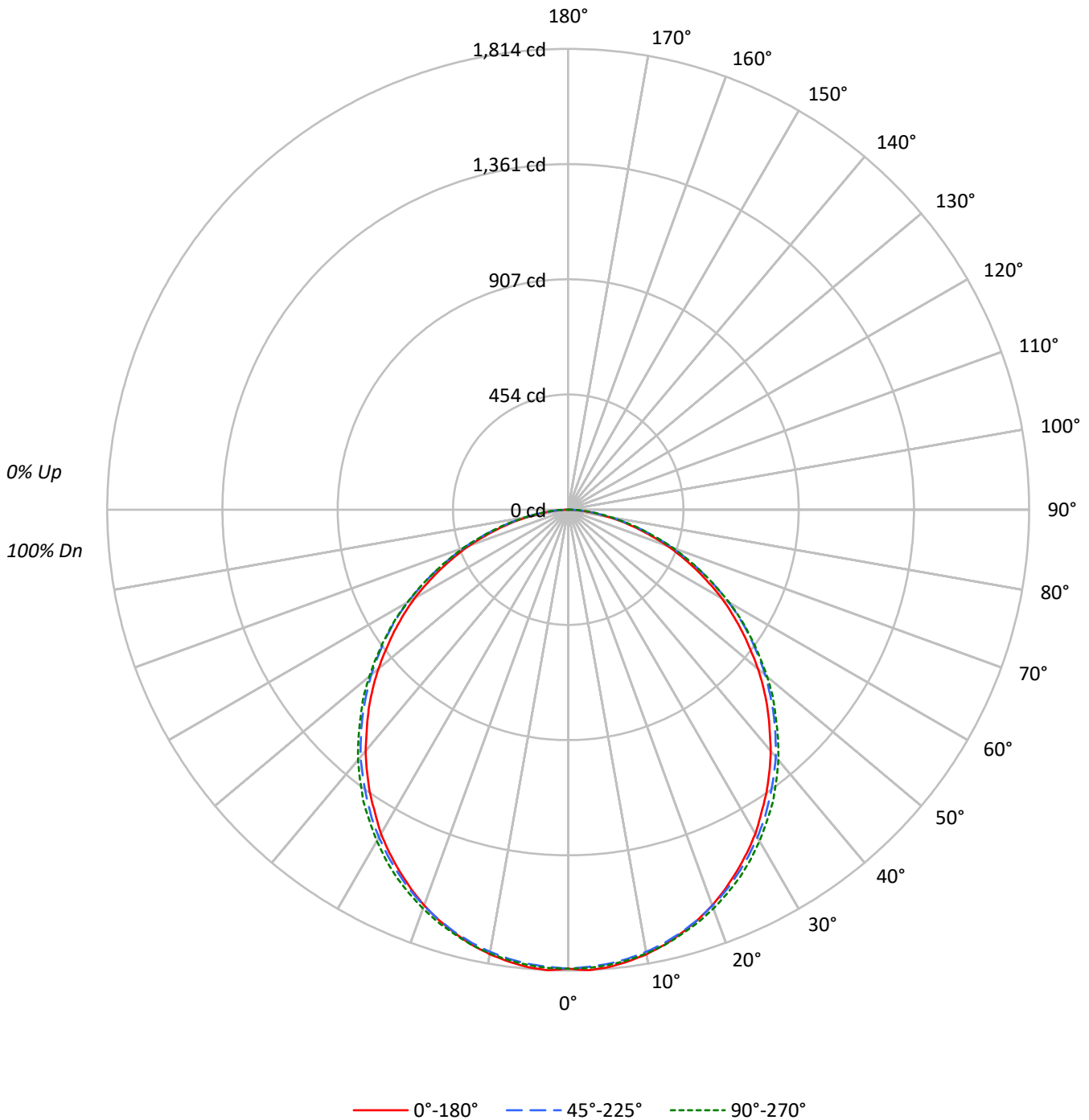
Lumens per Lamp: N/A
Luminaire Lumens: 4855.8 lumens
Efficiency: N/A
Efficacy: 147.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2431	2431	2431
5°	2442	2424	2431
10°	2428	2414	2423
15°	2403	2399	2409
20°	2373	2376	2392
25°	2331	2347	2371
30°	2288	2314	2339
35°	2234	2271	2306
40°	2177	2232	2260
45°	2112	2177	2199
50°	2040	2119	2138
55°	1961	2048	2059
60°	1880	1963	1971
65°	1762	1845	1840
70°	1632	1707	1723
75°	1446	1530	1540
80°	1203	1292	1321
85°	912	1000	1125



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.8	3.5
10°-20°	486.2	10.0
20°-30°	728.4	15.0
30°-40°	864.2	17.8
40°-50°	877.7	18.1
50°-60°	773.0	15.9
60°-70°	568.0	11.7
70°-80°	308.9	6.4
80°-90°	78.7	1.6
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°	1385.4	28.5
0°-40°	2249.6	46.3
0°-60°	3900.3	80.3
0°-90°	4855.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4855.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1807	1807	1807	1807	1807	
5°	1808	1800	1795	1795	1800	171
15°	1725	1722	1722	1724	1730	487
25°	1570	1572	1581	1590	1597	723
35°	1360	1368	1383	1397	1404	850
45°	1110	1119	1144	1157	1156	856
55°	836	848	873	881	878	747
65°	553	562	580	584	578	548
75°	278	284	294	295	296	296
85°	59	60	65	70	73	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1806.8	1806.8	1806.8	1806.8	1806.8
2.5°	1814.4	1807.2	1801.1	1801.1	1805.3
5°	1807.7	1800.1	1794.9	1794.9	1799.6
7.5°	1793.9	1787.7	1783.4	1783.4	1788.7
10°	1776.8	1770.6	1767.2	1767.7	1773.4
12.5°	1753.9	1748.2	1746.8	1747.7	1754.9
15°	1725.3	1722.0	1722.0	1724.4	1729.6
17.5°	1693.4	1690.1	1692.5	1695.8	1702.5
20°	1657.2	1654.9	1659.1	1664.4	1670.6
22.5°	1615.8	1614.9	1622.0	1629.1	1635.3
25°	1570.1	1572.0	1580.6	1589.6	1596.8
27.5°	1522.9	1524.9	1536.8	1546.3	1553.4
30°	1472.9	1473.9	1489.1	1500.6	1505.8
32.5°	1414.8	1422.5	1438.7	1449.6	1454.4
35°	1360.1	1367.7	1382.9	1396.7	1403.9
37.5°	1300.6	1307.2	1327.2	1342.0	1344.4
40°	1239.6	1245.8	1270.6	1282.9	1286.7
42.5°	1172.9	1184.8	1207.2	1219.6	1222.0
45°	1110.1	1119.1	1143.9	1157.2	1155.8
47.5°	1042.9	1052.9	1077.2	1090.1	1092.4
50°	974.8	986.2	1012.4	1021.0	1021.5
52.5°	903.4	918.1	942.0	953.4	949.6
55°	835.8	847.7	872.9	881.0	877.7
57.5°	766.2	779.6	802.9	807.2	807.7
60°	698.6	709.6	729.6	733.9	732.4
62.5°	624.3	635.3	653.4	657.7	654.3
65°	553.4	562.4	579.6	583.8	578.1
67.5°	482.9	491.9	505.3	511.9	505.7
70°	414.8	421.9	433.8	437.6	438.1
72.5°	342.4	355.3	363.8	363.4	361.9
75°	278.1	283.8	294.3	295.3	296.2
77.5°	216.7	218.1	229.1	231.9	230.0
80°	155.2	160.5	166.7	170.0	170.5
82.5°	102.4	106.2	111.4	117.1	117.1
85°	59.1	60.5	64.8	70.5	72.9
87.5°	23.8	26.2	30.5	34.8	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)