

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: P475643

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475643
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-38-A19/156-UNV-L830-CD1-U
Description: GR 2'X4' LED TROFFER w/ A19/156 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3495.4 lumens
Efficiency: N/A
Efficacy: 131.4 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

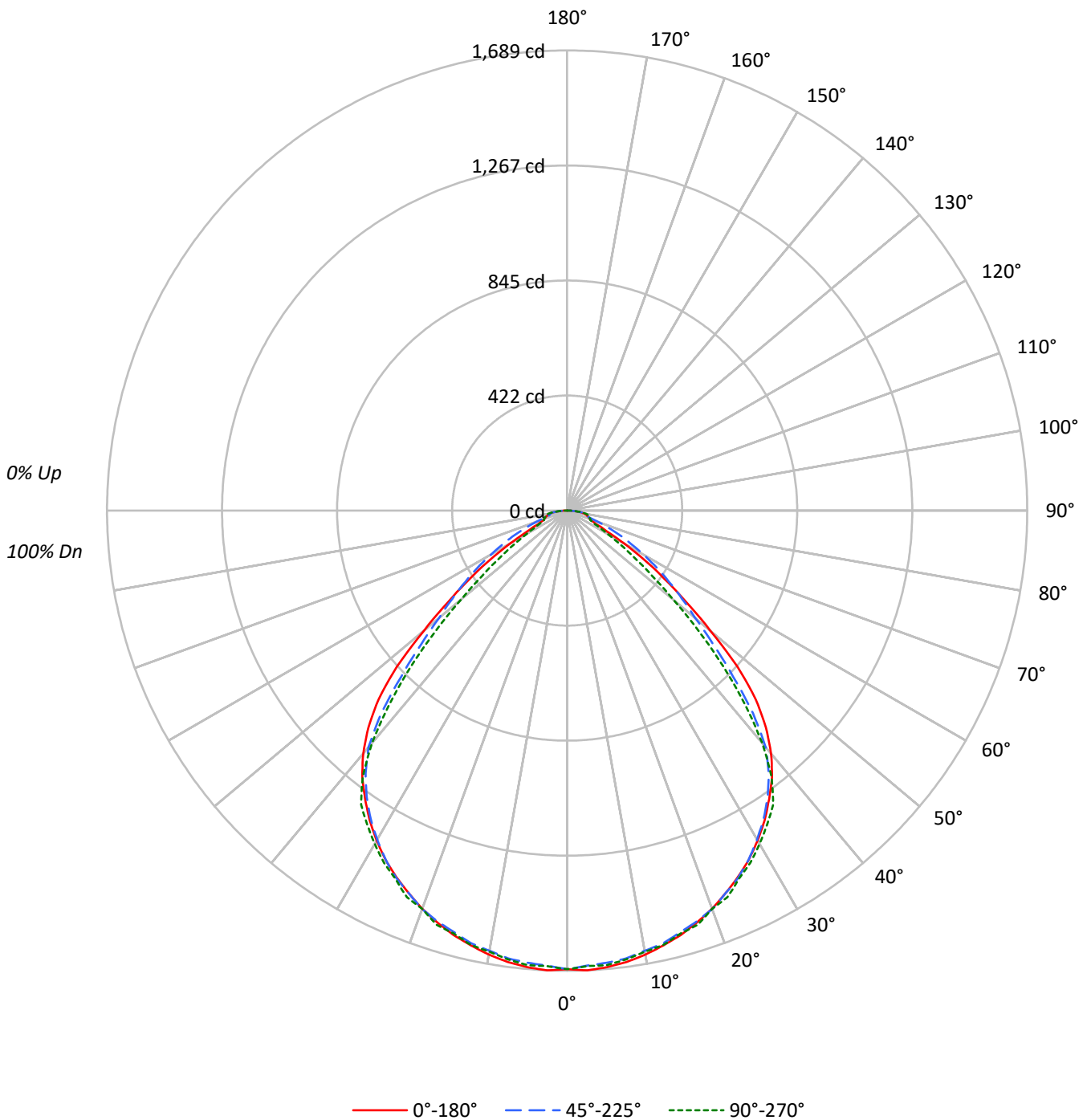
Input Watts (W): 26.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2265	2265	2265
5°	2272	2250	2261
10°	2261	2241	2247
15°	2246	2232	2239
20°	2227	2228	2227
25°	2203	2207	2214
30°	2172	2166	2194
35°	2123	2107	2166
40°	2046	1992	1956
45°	1862	1639	1546
50°	1437	1285	1062
55°	1021	1072	703
60°	646	866	459
65°	375	681	335
70°	347	469	356
75°	400	357	424
80°	499	494	559
85°	543	577	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.6	4.5
10°-20°	453.7	13.0
20°-30°	684.6	19.6
30°-40°	803.5	23.0
40°-50°	676.5	19.4
50°-60°	384.3	11.0
60°-70°	191.8	5.5
70°-80°	100.6	2.9
80°-90°	41.9	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°	1296.9	37.1
0°-40°	2100.4	60.1
0°-60°	3161.2	90.4
0°-90°	3495.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3495.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1683	1683	1683	1683	1683	
5°	1682	1670	1666	1669	1674	160
15°	1612	1608	1602	1606	1607	455
25°	1484	1485	1486	1490	1491	683
35°	1292	1285	1283	1305	1318	807
45°	979	940	861	846	812	737
55°	435	466	457	394	300	396
65°	118	244	214	182	105	134
75°	77	118	69	103	82	81
85°	35	42	37	47	39	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1683.2	1683.2	1683.2	1683.2	1683.2
2.5°	1689.2	1681.1	1671.8	1669.3	1673.6
5°	1682.1	1670.0	1665.8	1668.6	1674.3
7.5°	1671.1	1658.6	1657.9	1652.9	1661.5
10°	1654.7	1646.5	1640.5	1643.3	1644.4
12.5°	1634.1	1631.6	1627.0	1623.1	1632.7
15°	1612.4	1608.5	1602.1	1606.3	1607.4
17.5°	1584.6	1582.5	1581.4	1584.6	1593.9
20°	1555.1	1555.1	1556.2	1556.9	1555.4
22.5°	1519.9	1518.8	1520.2	1523.1	1536.6
25°	1483.9	1484.6	1486.4	1490.3	1491.4
27.5°	1444.1	1444.4	1443.7	1447.6	1456.9
30°	1398.2	1396.7	1393.9	1402.4	1412.4
32.5°	1348.3	1345.5	1342.3	1355.5	1366.1
35°	1292.5	1285.3	1282.9	1304.6	1318.4
37.5°	1235.2	1220.6	1215.2	1231.3	1233.0
40°	1164.7	1143.0	1134.1	1118.5	1113.8
42.5°	1080.0	1057.6	1009.6	985.4	968.3
45°	978.6	939.5	861.2	846.2	812.4
47.5°	847.6	806.0	727.7	695.7	657.3
50°	686.4	662.2	613.9	574.0	507.4
52.5°	548.7	553.7	530.9	475.8	393.2
55°	435.2	465.5	456.9	393.9	299.6
57.5°	334.9	400.0	389.7	324.2	228.8
60°	240.2	342.7	321.7	266.9	170.5
62.5°	164.8	292.5	263.7	220.3	130.6
65°	117.8	244.1	213.9	181.5	105.3
67.5°	96.8	199.6	164.0	154.1	91.8
70°	88.3	160.8	119.2	134.5	90.4
72.5°	84.0	134.9	87.5	117.8	86.1
75°	76.9	118.5	68.7	103.2	81.5
77.5°	71.2	102.5	64.1	90.4	79.4
80°	64.4	81.1	63.7	76.5	72.2
82.5°	52.0	59.1	53.7	62.6	58.4
85°	35.2	42.0	37.4	47.3	38.8
87.5°	17.4	20.6	16.7	22.4	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)