

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: P476005

Luminaire Tested: **22GR-LD5-36-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476005
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-36-A19/156-UNV-L840-CD1-U
Description: GR 2'X2' 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: 3565.2 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

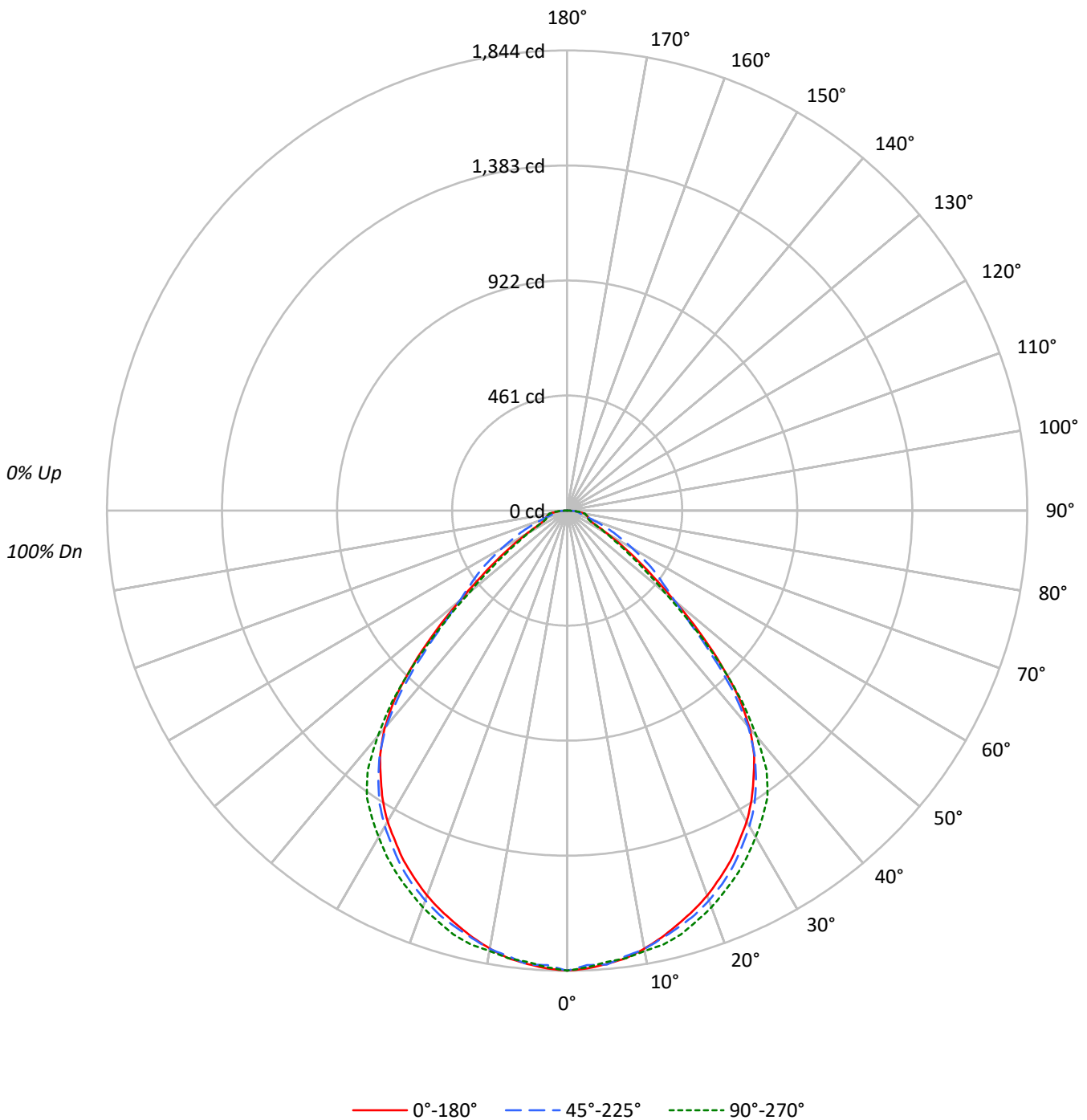
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	101	99	100	98	95	97	95	93	93	91	90	88					88			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68					68			
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4961	4961	4961
5°	4926	4932	4904
10°	4871	4873	4896
15°	4781	4814	4900
20°	4701	4760	4844
25°	4600	4671	4781
30°	4472	4540	4695
35°	4280	4334	4599
40°	3995	3964	4149
45°	3318	3131	3289
50°	2338	2349	2143
55°	1570	2019	1413
60°	1013	1621	939
65°	702	1255	676
70°	705	856	700
75°	868	669	861
80°	1060	775	1124
85°	1034	1056	1142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.6	4.8
10°-20°	488.6	13.7
20°-30°	724.6	20.3
30°-40°	828.9	23.2
40°-50°	656.2	18.4
50°-60°	358.0	10.0
60°-70°	187.3	5.3
70°-80°	108.2	3.0
80°-90°	40.9	1.1
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°	1385.8	38.9
0°-40°	2214.7	62.1
0°-60°	3228.8	90.6
0°-90°	3565.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3565.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1824	1811	1826	1820	1816	173
15°	1716	1725	1728	1742	1759	484
25°	1549	1551	1573	1593	1610	712
35°	1303	1303	1319	1367	1400	813
45°	872	867	823	863	864	663
55°	335	418	430	401	301	310
65°	110	222	197	211	106	119
75°	84	133	64	131	83	87
85°	34	44	34	44	37	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1843.6	1843.6	1843.6	1843.6	1843.6
2.5°	1836.7	1825.8	1823.0	1828.5	1831.9
5°	1823.7	1810.7	1825.8	1819.6	1815.5
7.5°	1808.7	1803.9	1801.1	1810.7	1808.7
10°	1782.7	1775.8	1783.3	1788.8	1791.6
12.5°	1751.2	1754.6	1756.0	1773.1	1781.3
15°	1716.3	1725.2	1727.9	1741.6	1758.7
17.5°	1680.7	1682.8	1699.2	1717.0	1725.2
20°	1641.7	1645.1	1662.2	1678.6	1691.6
22.5°	1595.8	1599.9	1621.2	1639.6	1650.6
25°	1549.3	1551.4	1573.3	1593.1	1610.2
27.5°	1493.2	1504.1	1517.1	1544.5	1563.0
30°	1439.1	1446.0	1461.0	1491.1	1511.0
32.5°	1375.5	1378.2	1397.4	1430.2	1456.9
35°	1303.0	1303.0	1319.4	1367.3	1400.1
37.5°	1231.1	1221.5	1234.5	1289.3	1312.5
40°	1137.3	1130.5	1128.5	1166.1	1181.1
42.5°	1022.4	1009.4	986.1	1024.4	1036.8
45°	871.8	867.0	822.6	862.9	864.3
47.5°	714.4	717.9	667.9	708.3	678.2
50°	558.4	594.0	561.1	578.3	511.9
52.5°	434.5	500.9	488.6	481.8	391.4
55°	334.6	418.1	430.4	401.0	301.1
57.5°	255.3	356.5	364.1	343.5	229.2
60°	188.2	301.1	301.1	291.5	174.5
62.5°	140.3	258.7	245.0	247.7	133.4
65°	110.2	221.7	197.1	210.8	106.1
67.5°	92.4	184.8	149.2	182.0	92.4
70°	89.6	160.8	108.8	164.2	89.0
72.5°	89.0	147.8	81.4	149.2	89.6
75°	83.5	133.4	64.3	131.4	82.8
77.5°	76.6	110.9	53.4	110.9	77.3
80°	68.4	84.2	50.0	86.2	72.5
82.5°	52.7	60.2	44.5	60.9	56.1
85°	33.5	43.8	34.2	44.5	37.0
87.5°	15.1	23.3	15.1	24.0	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)