

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: P476004

Luminaire Tested: **22GR-LD5-32-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476004
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-32-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: 3168.3 lumens
Efficiency: N/A
Efficacy: 126.7 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

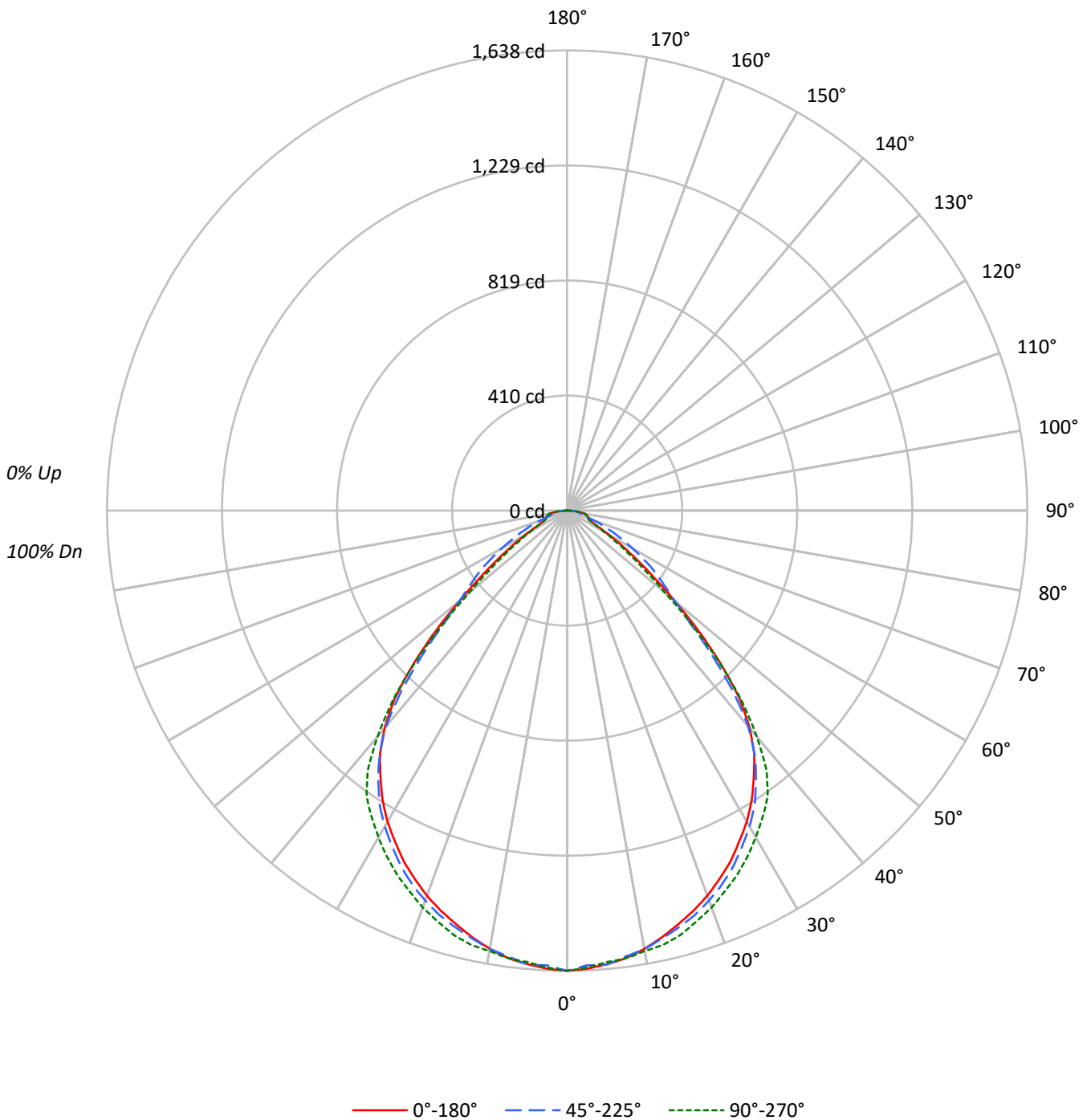
Input Watts (W): 25
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4409	4409	4409
5°	4378	4383	4358
10°	4329	4330	4350
15°	4249	4278	4354
20°	4178	4230	4305
25°	4088	4151	4249
30°	3974	4034	4172
35°	3804	3852	4088
40°	3550	3523	3687
45°	2949	2782	2923
50°	2077	2088	1904
55°	1395	1795	1255
60°	900	1440	835
65°	623	1115	600
70°	627	761	622
75°	771	595	765
80°	942	688	1000
85°	920	939	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	4.8
10°-20°	434.2	13.7
20°-30°	643.9	20.3
30°-40°	736.6	23.2
40°-50°	583.1	18.4
50°-60°	318.2	10.0
60°-70°	166.5	5.3
70°-80°	96.1	3.0
80°-90°	36.3	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°	1231.5	38.9
0°-40°	1968.1	62.1
0°-60°	2869.4	90.6
0°-90°	3168.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3168.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1638	1638	1638	1638	1638	
5°	1621	1609	1622	1617	1613	154
15°	1525	1533	1536	1548	1563	430
25°	1377	1379	1398	1416	1431	633
35°	1158	1158	1172	1215	1244	722
45°	775	770	731	767	768	589
55°	297	372	382	356	268	276
65°	98	197	175	187	94	106
75°	74	119	57	117	74	77
85°	30	39	30	40	33	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1638.3	1638.3	1638.3	1638.3	1638.3
2.5°	1632.3	1622.5	1620.1	1625.0	1628.0
5°	1620.7	1609.1	1622.5	1617.1	1613.4
7.5°	1607.3	1603.1	1600.6	1609.1	1607.3
10°	1584.2	1578.1	1584.8	1589.7	1592.1
12.5°	1556.2	1559.3	1560.5	1575.7	1583.0
15°	1525.2	1533.1	1535.6	1547.7	1562.9
17.5°	1493.6	1495.4	1510.0	1525.8	1533.1
20°	1458.9	1462.0	1477.2	1491.8	1503.3
22.5°	1418.2	1421.8	1440.7	1457.1	1466.8
25°	1376.8	1378.7	1398.1	1415.8	1431.0
27.5°	1327.0	1336.7	1348.3	1372.6	1389.0
30°	1278.9	1285.0	1298.4	1325.1	1342.8
32.5°	1222.4	1224.8	1241.8	1271.0	1294.7
35°	1157.9	1157.9	1172.5	1215.1	1244.3
37.5°	1094.1	1085.5	1097.1	1145.7	1166.4
40°	1010.7	1004.7	1002.8	1036.3	1049.7
42.5°	908.6	897.0	876.3	910.4	921.3
45°	774.8	770.5	731.0	766.9	768.1
47.5°	634.9	637.9	593.5	629.4	602.7
50°	496.2	527.9	498.7	513.9	454.9
52.5°	386.2	445.2	434.2	428.1	347.9
55°	297.4	371.6	382.5	356.4	267.6
57.5°	226.8	316.8	323.5	305.3	203.7
60°	167.2	267.6	267.6	259.1	155.1
62.5°	124.7	229.9	217.7	220.1	118.6
65°	97.9	197.0	175.1	187.3	94.3
67.5°	82.1	164.2	132.6	161.8	82.1
70°	79.7	142.9	96.7	146.0	79.1
72.5°	79.1	131.4	72.4	132.6	79.7
75°	74.2	118.6	57.2	116.8	73.6
77.5°	68.1	98.5	47.4	98.5	68.7
80°	60.8	74.8	44.4	76.6	64.5
82.5°	46.8	53.5	39.5	54.1	49.9
85°	29.8	38.9	30.4	39.5	32.8
87.5°	13.4	20.7	13.4	21.3	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)