

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: P291808

Luminaire Tested: **22GR-LD5-36-F1-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291808
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-36-F1-UNV-L82765-W2A1-U-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3675.0 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

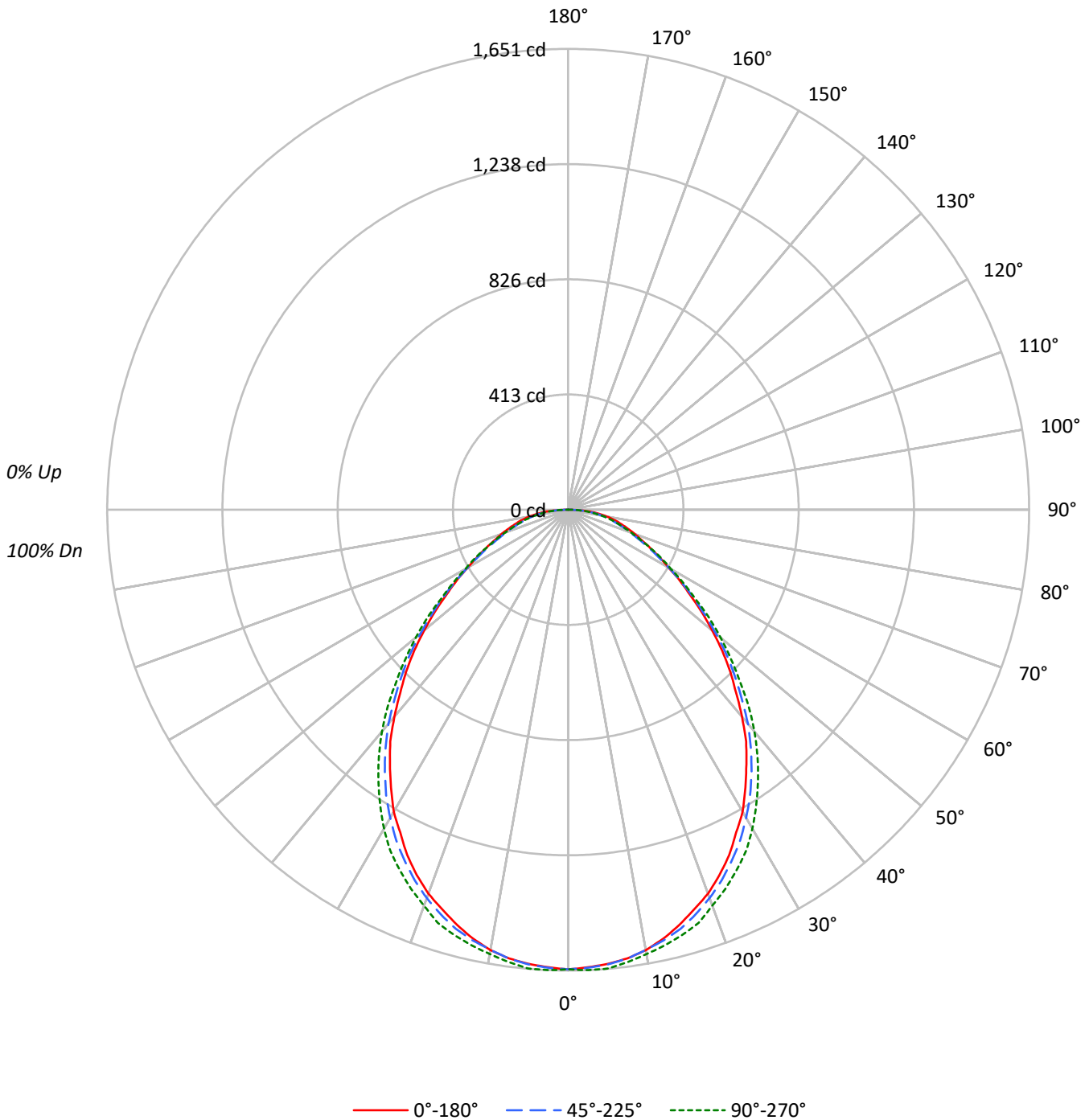
Input Watts (W): 28.644
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48					48			
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38					38			
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34					34			
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4432	4432	4432
5°	4412	4417	4458
10°	4378	4376	4417
15°	4289	4332	4395
20°	4192	4240	4322
25°	4053	4118	4233
30°	3882	3961	4099
35°	3655	3760	3893
40°	3401	3517	3644
45°	3123	3212	3312
50°	2817	2887	2979
55°	2499	2558	2602
60°	2239	2244	2289
65°	2064	1994	2064
70°	1992	1847	1899
75°	2027	1808	1843
80°	2185	1897	1897
85°	2424	2007	1982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.3	4.2
10°-20°	438.2	11.9
20°-30°	639.5	17.4
30°-40°	716.0	19.5
40°-50°	651.6	17.7
50°-60°	490.4	13.3
60°-70°	320.0	8.7
70°-80°	191.9	5.2
80°-90°	72.0	2.0
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°	1233.0	33.6
0°-40°	1949.0	53.0
0°-60°	3091.0	84.1
0°-90°	3675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1647	1647	1647	1647	1647	
5°	1633	1631	1635	1641	1650	155
15°	1540	1541	1555	1568	1578	434
25°	1365	1369	1387	1412	1426	627
35°	1112	1123	1145	1172	1185	695
45°	820	829	844	862	870	632
55°	533	540	545	553	555	481
65°	324	321	313	318	324	324
75°	195	188	174	175	177	207
85°	78	76	65	62	64	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1646.8	1646.8	1646.8	1646.8	1646.8
2.5°	1640.9	1640.1	1642.6	1646.8	1651.1
5°	1633.3	1630.8	1635.0	1640.9	1650.2
7.5°	1621.5	1621.5	1621.5	1632.5	1634.2
10°	1602.1	1603.8	1601.3	1612.2	1616.5
12.5°	1574.3	1575.1	1580.2	1591.1	1598.7
15°	1539.6	1541.3	1554.8	1567.5	1577.6
17.5°	1500.8	1506.7	1519.4	1539.6	1552.3
20°	1463.7	1470.4	1480.6	1502.5	1509.3
22.5°	1416.4	1424.0	1436.7	1456.1	1470.4
25°	1364.9	1369.1	1386.9	1412.2	1425.7
27.5°	1303.3	1312.6	1334.5	1360.7	1379.3
30°	1249.3	1254.3	1274.6	1305.0	1319.3
32.5°	1180.9	1196.1	1213.0	1240.0	1253.5
35°	1112.5	1122.7	1144.6	1171.6	1185.1
37.5°	1046.7	1052.6	1074.5	1097.3	1114.2
40°	968.2	979.2	1001.1	1025.6	1037.4
42.5°	889.7	905.7	920.1	944.6	957.2
45°	820.5	828.9	844.1	861.8	870.3
47.5°	747.9	752.1	769.8	780.8	790.1
50°	672.8	677.8	689.6	700.6	711.6
52.5°	603.5	607.8	615.4	625.5	636.5
55°	532.6	540.2	545.3	552.9	554.6
57.5°	475.2	474.4	477.8	483.7	489.6
60°	416.1	417.8	417.0	422.9	425.4
62.5°	367.2	366.3	361.3	369.7	376.5
65°	324.1	320.8	313.2	318.2	324.1
67.5°	284.5	282.8	270.1	274.3	279.4
70°	253.2	247.3	234.7	237.2	241.4
72.5°	222.8	216.1	203.4	204.3	206.8
75°	195.0	188.2	173.9	174.7	177.3
77.5°	168.8	160.4	147.7	146.0	147.7
80°	141.0	133.4	122.4	117.3	122.4
82.5°	112.3	108.0	95.4	90.3	92.0
85°	78.5	76.0	65.0	61.6	64.2
87.5°	36.3	38.8	32.9	30.4	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)