

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: P291759

Luminaire Tested: **22GR-LD5-40-F1-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291759  
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-LD5-40-F1-UNV-L83050-W2A1-U-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4078.0 lumens  
Efficiency: N/A  
Efficacy: 126.0 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

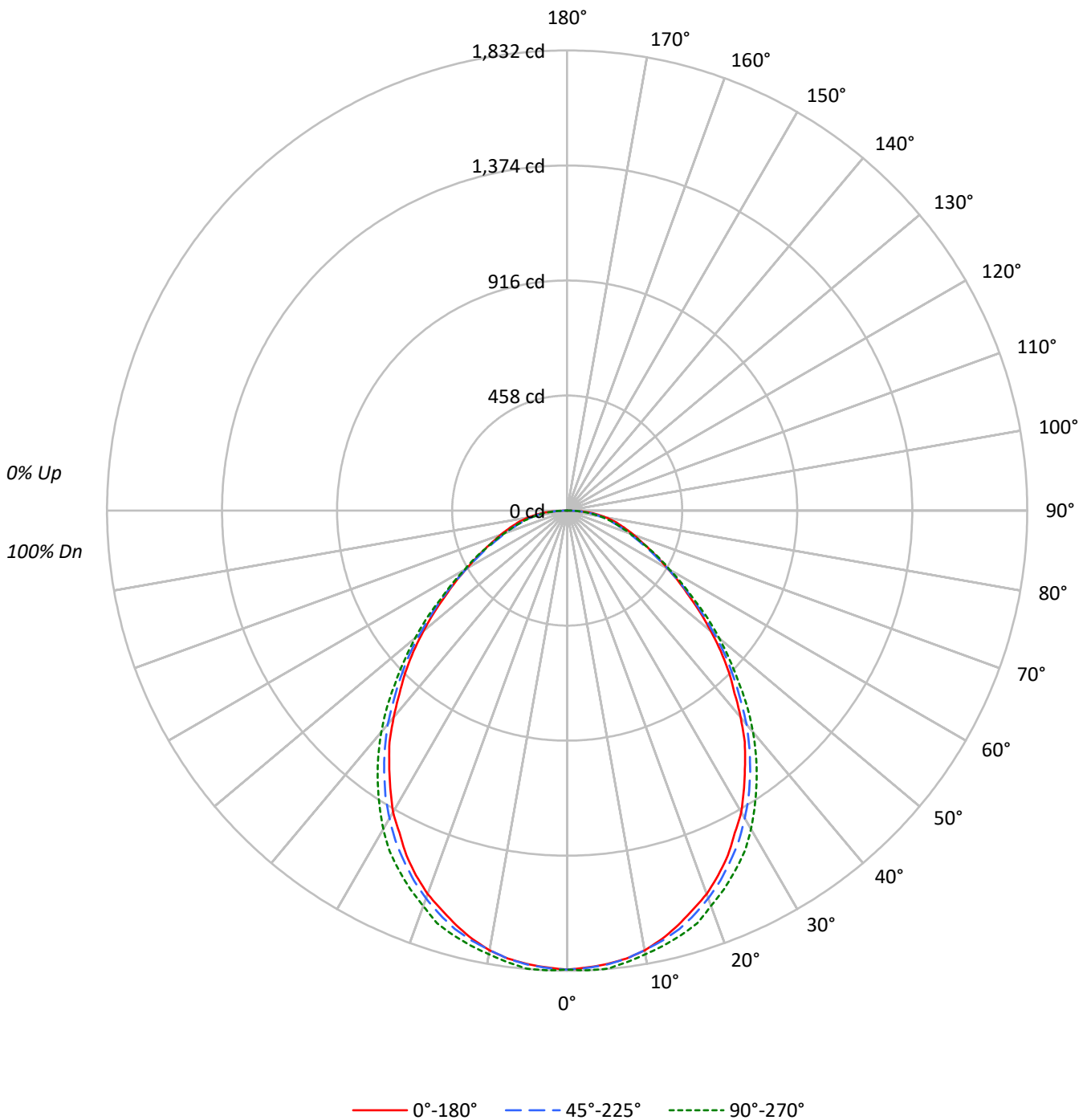
Input Watts (W): 32.364  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4917	4917	4917
5°	4896	4901	4947
10°	4858	4855	4901
15°	4760	4807	4877
20°	4651	4705	4796
25°	4497	4569	4697
30°	4308	4395	4549
35°	4055	4172	4320
40°	3774	3902	4044
45°	3465	3565	3675
50°	3125	3204	3306
55°	2773	2839	2887
60°	2485	2490	2541
65°	2290	2213	2290
70°	2211	2049	2108
75°	2250	2007	2045
80°	2424	2104	2104
85°	2689	2226	2198



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.4	4.2
10°-20°	486.2	11.9
20°-30°	709.6	17.4
30°-40°	794.5	19.5
40°-50°	723.1	17.7
50°-60°	544.2	13.3
60°-70°	355.1	8.7
70°-80°	213.0	5.2
80°-90°	79.9	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°	1368.2	33.6
0°-40°	2162.7	53.0
0°-60°	3430.0	84.1
0°-90°	4078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4078.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1827	1827	1827	1827	1827	
5°	1812	1810	1814	1821	1831	172
15°	1708	1710	1725	1739	1751	481
25°	1515	1519	1539	1567	1582	695
35°	1234	1246	1270	1300	1315	772
45°	910	920	937	956	966	701
55°	591	600	605	614	615	534
65°	360	356	348	353	360	360
75°	216	209	193	194	197	230
85°	87	84	72	68	71	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1827.4	1827.4	1827.4	1827.4	1827.4
2.5°	1820.9	1819.9	1822.8	1827.4	1832.1
5°	1812.5	1809.6	1814.3	1820.9	1831.2
7.5°	1799.3	1799.3	1799.3	1811.5	1813.4
10°	1777.8	1779.7	1776.9	1789.0	1793.7
12.5°	1746.9	1747.8	1753.4	1765.6	1774.0
15°	1708.5	1710.4	1725.3	1739.4	1750.6
17.5°	1665.4	1672.0	1686.0	1708.5	1722.5
20°	1624.2	1631.7	1642.9	1667.3	1674.8
22.5°	1571.7	1580.2	1594.2	1615.8	1631.7
25°	1514.6	1519.3	1538.9	1567.0	1582.0
27.5°	1446.2	1456.5	1480.9	1509.9	1530.5
30°	1386.3	1391.9	1414.4	1448.1	1464.0
32.5°	1310.4	1327.3	1346.0	1376.0	1391.0
35°	1234.5	1245.8	1270.1	1300.1	1315.1
37.5°	1161.5	1168.0	1192.4	1217.7	1236.4
40°	1074.4	1086.5	1110.9	1138.1	1151.2
42.5°	987.2	1005.0	1021.0	1048.1	1062.2
45°	910.4	919.8	936.7	956.3	965.7
47.5°	829.9	834.6	854.2	866.4	876.7
50°	746.5	752.1	765.3	777.4	789.6
52.5°	669.7	674.4	682.8	694.1	706.2
55°	591.0	599.5	605.1	613.5	615.4
57.5°	527.3	526.4	530.2	536.7	543.3
60°	461.8	463.7	462.7	469.3	472.1
62.5°	407.5	406.5	400.9	410.3	417.8
65°	359.7	355.9	347.5	353.1	359.7
67.5°	315.7	313.8	299.7	304.4	310.0
70°	281.0	274.4	260.4	263.2	267.9
72.5°	247.3	239.8	225.7	226.7	229.5
75°	216.4	208.9	193.0	193.9	196.7
77.5°	187.3	178.0	163.9	162.0	163.9
80°	156.4	148.0	135.8	130.2	135.8
82.5°	124.6	119.9	105.8	100.2	102.1
85°	87.1	84.3	72.1	68.4	71.2
87.5°	40.3	43.1	36.5	33.7	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)