

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: P291817

Luminaire Tested: **22GR-LD5-40-F1-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291817
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-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: 4143.0 lumens
Efficiency: N/A
Efficacy: 125.5 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

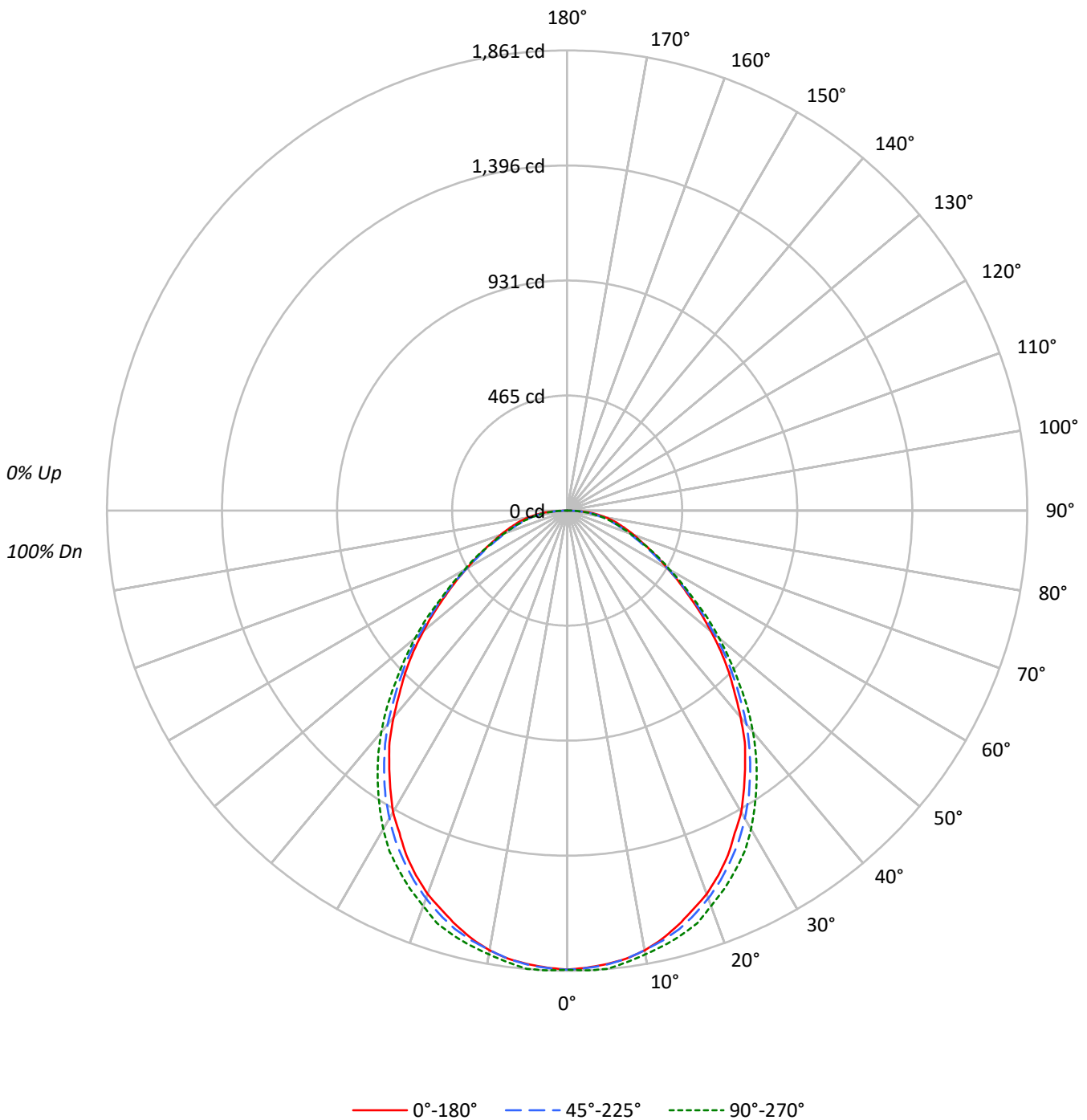
Input Watts (W): 33.015
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4996	4996	4996
5°	4974	4979	5025
10°	4935	4933	4979
15°	4835	4883	4955
20°	4725	4780	4873
25°	4569	4642	4772
30°	4376	4465	4621
35°	4120	4239	4389
40°	3834	3965	4108
45°	3520	3621	3734
50°	3175	3255	3358
55°	2817	2884	2933
60°	2525	2530	2581
65°	2327	2248	2327
70°	2246	2081	2142
75°	2285	2038	2077
80°	2462	2139	2139
85°	2732	2263	2232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.1	4.2
10°-20°	494.0	11.9
20°-30°	720.9	17.4
30°-40°	807.1	19.5
40°-50°	734.6	17.7
50°-60°	552.9	13.3
60°-70°	360.8	8.7
70°-80°	216.4	5.2
80°-90°	81.2	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°	1390.0	33.6
0°-40°	2197.2	53.0
0°-60°	3484.7	84.1
0°-90°	4143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4143.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1857	1857	1857	1857	1857	
5°	1841	1838	1843	1850	1860	175
15°	1736	1738	1753	1767	1778	489
25°	1539	1544	1564	1592	1607	706
35°	1254	1266	1290	1321	1336	784
45°	925	934	952	972	981	712
55°	600	609	615	623	625	543
65°	365	362	353	359	365	365
75°	220	212	196	197	200	233
85°	88	86	73	70	72	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1856.6	1856.6	1856.6	1856.6	1856.6
2.5°	1849.9	1849.0	1851.8	1856.6	1861.3
5°	1841.3	1838.5	1843.2	1849.9	1860.4
7.5°	1828.0	1828.0	1828.0	1840.4	1842.3
10°	1806.1	1808.0	1805.2	1817.6	1822.3
12.5°	1774.7	1775.7	1781.4	1793.8	1802.3
15°	1735.7	1737.6	1752.8	1767.1	1778.5
17.5°	1691.9	1698.6	1712.9	1735.7	1750.0
20°	1650.1	1657.7	1669.1	1693.8	1701.5
22.5°	1596.8	1605.3	1619.6	1641.5	1657.7
25°	1538.7	1543.5	1563.5	1592.0	1607.2
27.5°	1469.3	1479.7	1504.5	1534.0	1554.9
30°	1408.4	1414.1	1436.9	1471.2	1487.3
32.5°	1331.3	1348.4	1367.4	1397.9	1413.1
35°	1254.2	1265.6	1290.4	1320.8	1336.0
37.5°	1180.0	1186.6	1211.4	1237.1	1256.1
40°	1091.5	1103.9	1128.6	1156.2	1169.5
42.5°	1003.0	1021.1	1037.2	1064.8	1079.1
45°	925.0	934.5	951.6	971.6	981.1
47.5°	843.1	847.9	867.9	880.2	890.7
50°	758.4	764.1	777.5	789.8	802.2
52.5°	680.4	685.2	693.7	705.1	717.5
55°	600.5	609.0	614.7	623.3	625.2
57.5°	535.7	534.8	538.6	545.3	551.9
60°	469.1	471.0	470.1	476.8	479.6
62.5°	413.9	413.0	407.3	416.8	424.4
65°	365.4	361.6	353.0	358.8	365.4
67.5°	320.7	318.8	304.5	309.3	315.0
70°	285.5	278.8	264.5	267.4	272.2
72.5°	251.2	243.6	229.3	230.3	233.1
75°	219.8	212.2	196.0	197.0	199.8
77.5°	190.3	180.8	166.5	164.6	166.5
80°	158.9	150.4	138.0	132.3	138.0
82.5°	126.6	121.8	107.5	101.8	103.7
85°	88.5	85.6	73.3	69.5	72.3
87.5°	40.9	43.8	37.1	34.3	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)