

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: P291859

Luminaire Tested: **22GR-LD5-40-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291859
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-L93050-W2A1-U-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3809.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

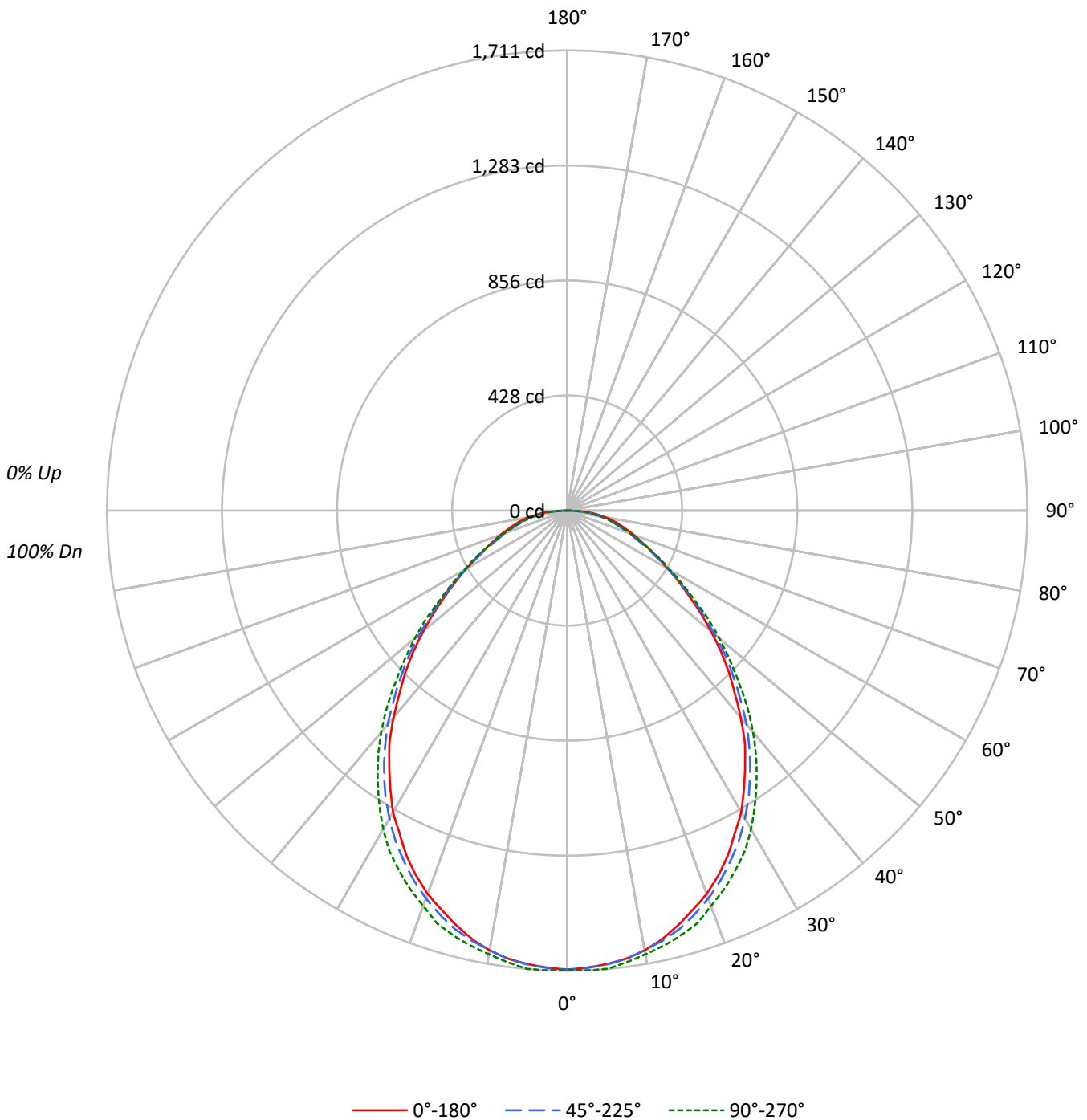
Input Watts (W): 33.759
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4593	4593	4593
5°	4573	4578	4620
10°	4537	4535	4578
15°	4446	4489	4556
20°	4344	4394	4480
25°	4200	4268	4388
30°	4023	4105	4249
35°	3788	3897	4035
40°	3525	3645	3777
45°	3236	3330	3433
50°	2919	2992	3087
55°	2590	2652	2697
60°	2321	2326	2373
65°	2139	2067	2139
70°	2065	1913	1969
75°	2101	1874	1910
80°	2264	1967	1967
85°	2513	2081	2053



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.0	4.2
10°-20°	454.1	11.9
20°-30°	662.8	17.4
30°-40°	742.1	19.5
40°-50°	675.4	17.7
50°-60°	508.3	13.3
60°-70°	331.7	8.7
70°-80°	198.9	5.2
80°-90°	74.6	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°	1278.0	33.6
0°-40°	2020.0	53.0
0°-60°	3203.7	84.1
0°-90°	3809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1707	1707	1707	1707	1707	
5°	1693	1690	1695	1701	1710	161
15°	1596	1598	1612	1625	1635	449
25°	1415	1419	1437	1464	1478	650
35°	1153	1164	1186	1214	1228	721
45°	850	859	875	893	902	655
55°	552	560	565	573	575	499
65°	336	332	325	330	336	336
75°	202	195	180	181	184	214
85°	81	79	67	64	66	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1706.9	1706.9	1706.9	1706.9	1706.9
2.5°	1700.8	1699.9	1702.5	1706.9	1711.3
5°	1692.9	1690.3	1694.6	1700.8	1710.4
7.5°	1680.6	1680.6	1680.6	1692.0	1693.8
10°	1660.5	1662.3	1659.7	1671.0	1675.4
12.5°	1631.7	1632.5	1637.8	1649.2	1657.0
15°	1595.8	1597.5	1611.5	1624.7	1635.2
17.5°	1555.5	1561.7	1574.8	1595.8	1608.9
20°	1517.0	1524.0	1534.5	1557.3	1564.3
22.5°	1468.1	1475.9	1489.0	1509.2	1524.0
25°	1414.7	1419.1	1437.4	1463.7	1477.7
27.5°	1350.8	1360.4	1383.2	1410.3	1429.6
30°	1294.8	1300.1	1321.1	1352.6	1367.4
32.5°	1224.0	1239.7	1257.2	1285.2	1299.2
35°	1153.1	1163.6	1186.3	1214.3	1228.3
37.5°	1084.9	1091.0	1113.7	1137.3	1154.8
40°	1003.5	1014.9	1037.6	1063.0	1075.2
42.5°	922.1	938.7	953.6	979.0	992.1
45°	850.4	859.1	874.9	893.3	902.0
47.5°	775.1	779.5	797.9	809.3	818.9
50°	697.3	702.5	714.8	726.2	737.5
52.5°	625.5	629.9	637.8	648.3	659.7
55°	552.1	559.9	565.2	573.0	574.8
57.5°	492.6	491.7	495.2	501.3	507.4
60°	431.3	433.1	432.2	438.3	440.9
62.5°	380.6	379.7	374.4	383.2	390.2
65°	336.0	332.5	324.6	329.8	336.0
67.5°	294.8	293.1	280.0	284.3	289.6
70°	262.5	256.3	243.2	245.8	250.2
72.5°	231.0	224.0	210.8	211.7	214.3
75°	202.1	195.1	180.2	181.1	183.7
77.5°	175.0	166.2	153.1	151.4	153.1
80°	146.1	138.2	126.9	121.6	126.9
82.5°	116.4	112.0	98.9	93.6	95.4
85°	81.4	78.7	67.4	63.9	66.5
87.5°	37.6	40.2	34.1	31.5	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)