

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: P291858

Luminaire Tested: **22GR-LD5-40-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291858
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-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3744.0 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

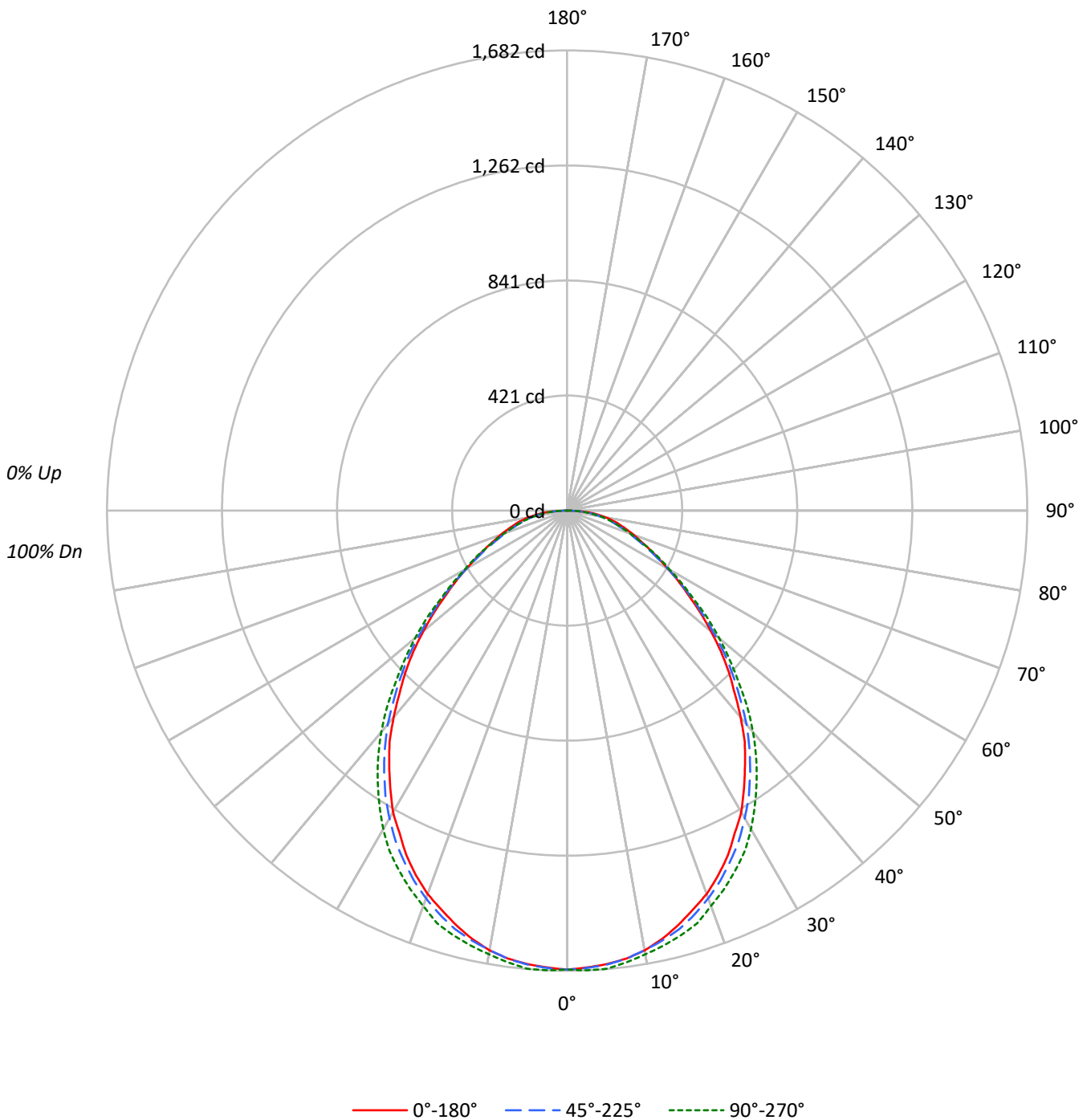
Input Watts (W): 33.201
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4515	4515	4515
5°	4495	4499	4541
10°	4460	4458	4500
15°	4370	4413	4478
20°	4270	4320	4403
25°	4129	4195	4313
30°	3955	4035	4176
35°	3723	3831	3966
40°	3465	3583	3713
45°	3181	3273	3374
50°	2869	2941	3035
55°	2546	2606	2651
60°	2282	2286	2333
65°	2103	2031	2103
70°	2030	1881	1935
75°	2065	1842	1878
80°	2225	1932	1932
85°	2470	2044	2019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.3	4.2
10°-20°	446.4	11.9
20°-30°	651.5	17.4
30°-40°	729.4	19.5
40°-50°	663.8	17.7
50°-60°	499.7	13.3
60°-70°	326.1	8.7
70°-80°	195.5	5.2
80°-90°	73.3	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°	1256.2	33.6
0°-40°	1985.6	53.0
0°-60°	3149.1	84.1
0°-90°	3744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3744.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1678	1678	1678	1678	1678	
5°	1664	1661	1666	1672	1681	158
15°	1569	1570	1584	1597	1607	442
25°	1390	1395	1413	1439	1452	638
35°	1133	1144	1166	1194	1207	708
45°	836	844	860	878	887	644
55°	543	550	556	563	565	490
65°	330	327	319	324	330	330
75°	199	192	177	178	181	211
85°	80	77	66	63	65	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1677.8	1677.8	1677.8	1677.8	1677.8
2.5°	1671.7	1670.9	1673.5	1677.8	1682.1
5°	1664.0	1661.4	1665.7	1671.7	1681.2
7.5°	1652.0	1652.0	1652.0	1663.1	1664.9
10°	1632.2	1633.9	1631.3	1642.5	1646.8
12.5°	1603.8	1604.7	1609.8	1621.0	1628.7
15°	1568.6	1570.3	1584.0	1596.9	1607.3
17.5°	1529.0	1535.0	1547.9	1568.6	1581.5
20°	1491.2	1498.0	1508.4	1530.7	1537.6
22.5°	1443.0	1450.7	1463.6	1483.4	1498.0
25°	1390.5	1394.8	1412.9	1438.7	1452.5
27.5°	1327.8	1337.2	1359.6	1386.2	1405.2
30°	1272.7	1277.9	1298.5	1329.5	1344.1
32.5°	1203.1	1218.6	1235.8	1263.3	1277.0
35°	1133.4	1143.7	1166.1	1193.6	1207.4
37.5°	1066.3	1072.4	1094.7	1117.9	1135.1
40°	986.4	997.5	1019.9	1044.8	1056.9
42.5°	906.4	922.7	937.3	962.3	975.2
45°	835.9	844.5	860.0	878.0	886.6
47.5°	761.9	766.2	784.3	795.5	804.9
50°	685.4	690.5	702.6	713.8	724.9
52.5°	614.9	619.2	626.9	637.2	648.4
55°	542.6	550.4	555.5	563.3	565.0
57.5°	484.2	483.3	486.7	492.8	498.8
60°	424.0	425.7	424.8	430.8	433.4
62.5°	374.1	373.2	368.1	376.7	383.5
65°	330.2	326.8	319.0	324.2	330.2
67.5°	289.8	288.1	275.2	279.5	284.6
70°	258.0	252.0	239.1	241.6	245.9
72.5°	227.0	220.1	207.2	208.1	210.7
75°	198.6	191.8	177.2	178.0	180.6
77.5°	172.0	163.4	150.5	148.8	150.5
80°	143.6	135.9	124.7	119.5	124.7
82.5°	114.4	110.1	97.2	92.0	93.7
85°	80.0	77.4	66.2	62.8	65.4
87.5°	37.0	39.6	33.5	31.0	31.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)