

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: P291790

Luminaire Tested: **22GR-LD5-28-F1-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291790
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-LD5-28-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: 2964.0 lumens
Efficiency: N/A
Efficacy: 132.2 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

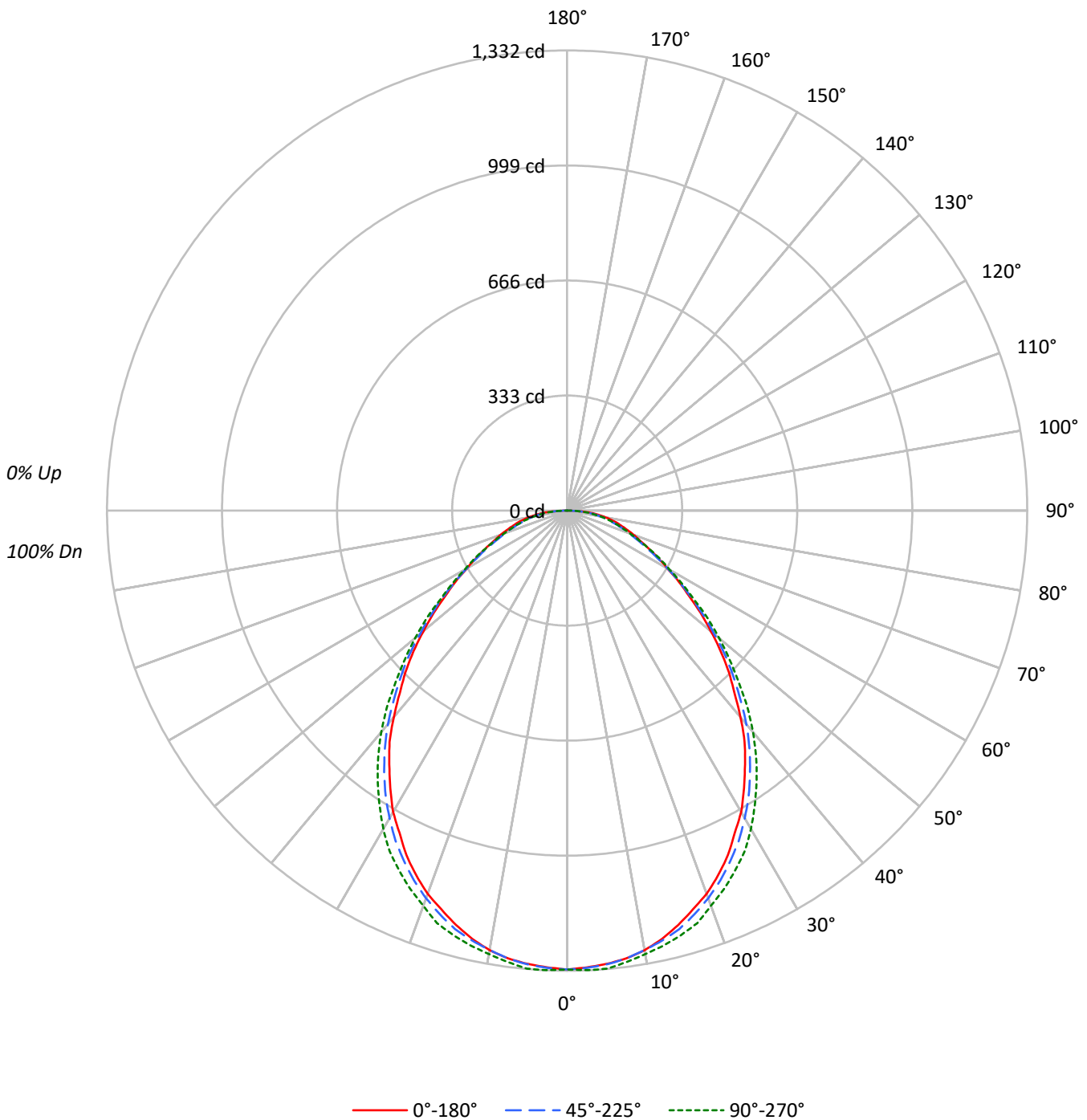
Input Watts (W): 22.413
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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																												
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																												
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73																												
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																												
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55																												
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48																												
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43																												
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38																												
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34																												
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31																												
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3574	3574	3574
5°	3558	3562	3595
10°	3531	3529	3562
15°	3460	3494	3545
20°	3381	3420	3486
25°	3268	3321	3414
30°	3131	3194	3306
35°	2948	3033	3140
40°	2743	2836	2939
45°	2518	2591	2671
50°	2272	2328	2403
55°	2016	2063	2099
60°	1806	1810	1847
65°	1664	1608	1664
70°	1607	1489	1532
75°	1635	1458	1487
80°	1762	1530	1530
85°	1954	1618	1596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.3	4.2
10°-20°	353.4	11.9
20°-30°	515.8	17.4
30°-40°	577.5	19.5
40°-50°	525.5	17.7
50°-60°	395.6	13.3
60°-70°	258.1	8.7
70°-80°	154.8	5.2
80°-90°	58.1	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°	994.5	33.6
0°-40°	1571.9	53.0
0°-60°	2493.0	84.1
0°-90°	2964.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2964.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1317	1315	1319	1324	1331	125
15°	1242	1243	1254	1264	1272	350
25°	1101	1104	1118	1139	1150	505
35°	897	906	923	945	956	561
45°	662	668	681	695	702	509
55°	430	436	440	446	447	388
65°	261	259	253	257	261	261
75°	157	152	140	141	143	167
85°	63	61	52	50	52	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1328.2	1328.2	1328.2	1328.2	1328.2
2.5°	1323.5	1322.8	1324.8	1328.2	1331.6
5°	1317.3	1315.3	1318.7	1323.5	1331.0
7.5°	1307.8	1307.8	1307.8	1316.7	1318.0
10°	1292.2	1293.5	1291.5	1300.3	1303.7
12.5°	1269.7	1270.4	1274.4	1283.3	1289.4
15°	1241.8	1243.1	1254.0	1264.2	1272.4
17.5°	1210.5	1215.2	1225.4	1241.8	1252.0
20°	1180.5	1185.9	1194.1	1211.8	1217.3
22.5°	1142.4	1148.5	1158.7	1174.4	1185.9
25°	1100.8	1104.3	1118.5	1139.0	1149.9
27.5°	1051.1	1058.6	1076.3	1097.4	1112.4
30°	1007.6	1011.7	1028.0	1052.5	1064.1
32.5°	952.4	964.7	978.3	1000.1	1011.0
35°	897.3	905.5	923.2	944.9	955.8
37.5°	844.2	849.0	866.7	885.0	898.7
40°	780.9	789.7	807.4	827.2	836.7
42.5°	717.6	730.5	742.1	761.8	772.0
45°	661.7	668.5	680.8	695.1	701.9
47.5°	603.2	606.6	620.9	629.7	637.2
50°	542.6	546.7	556.2	565.1	573.9
52.5°	486.8	490.2	496.3	504.5	513.3
55°	429.6	435.7	439.8	445.9	447.3
57.5°	383.3	382.6	385.3	390.1	394.9
60°	335.6	337.0	336.3	341.1	343.1
62.5°	296.1	295.5	291.4	298.2	303.6
65°	261.4	258.7	252.6	256.7	261.4
67.5°	229.4	228.1	217.9	221.3	225.3
70°	204.2	199.5	189.3	191.3	194.7
72.5°	179.7	174.3	164.1	164.8	166.8
75°	157.3	151.8	140.2	140.9	143.0
77.5°	136.2	129.4	119.1	117.8	119.1
80°	113.7	107.6	98.7	94.6	98.7
82.5°	90.5	87.1	76.9	72.8	74.2
85°	63.3	61.3	52.4	49.7	51.7
87.5°	29.3	31.3	26.6	24.5	25.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)