

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: P290618

Luminaire Tested: **14GR-LD5-28-F1-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290618  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-7)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-28-F1-UNV-L82765-W2A1-U-6500K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3011.0 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.15 / 1.23  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

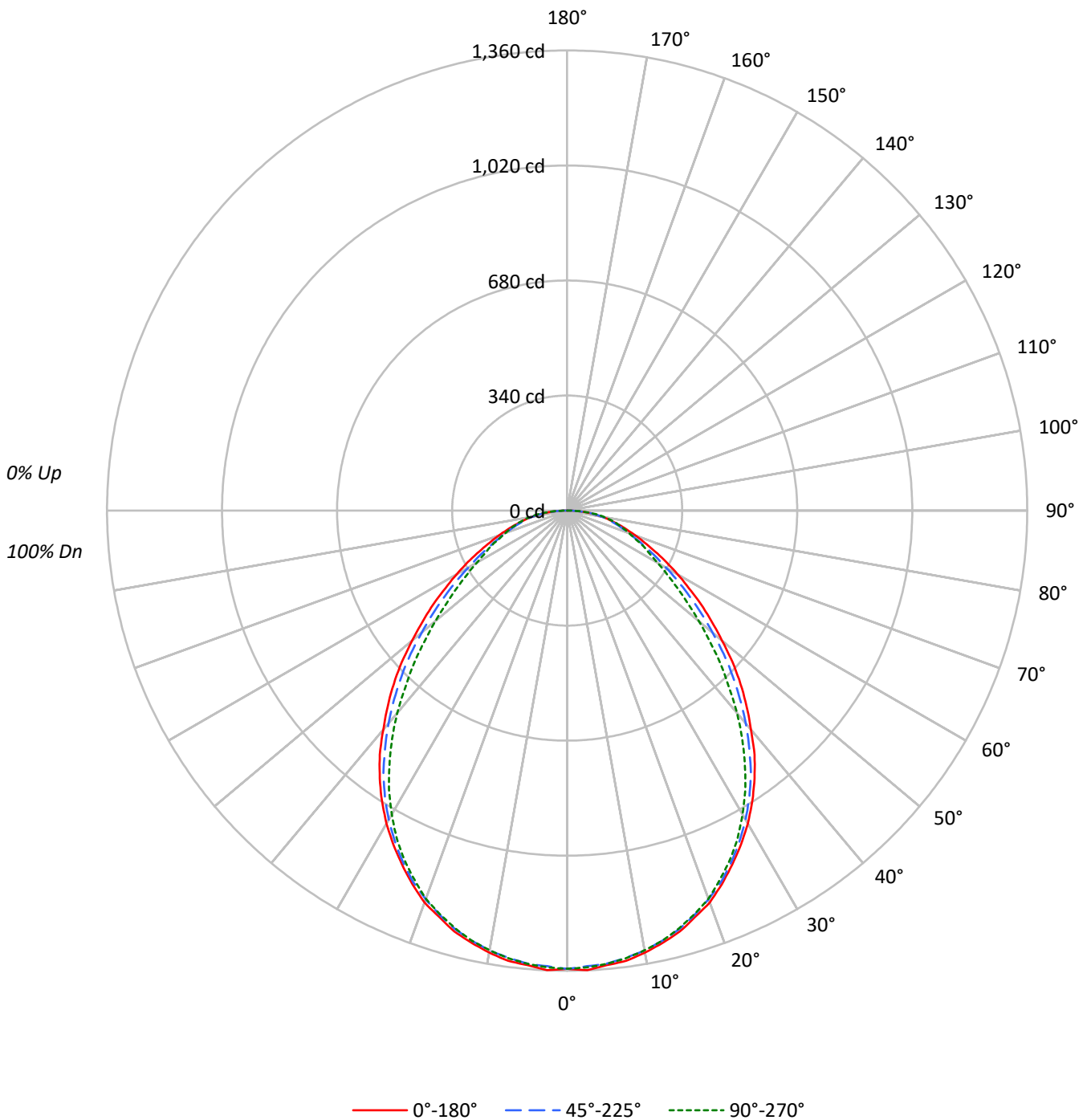
Input Watts (W): 23.25  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	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	64	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50	48					48			
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38					38			
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34					34			
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29					29			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3644	3644	3644
5°	3643	3630	3632
10°	3625	3608	3606
15°	3588	3567	3561
20°	3530	3500	3496
25°	3428	3406	3381
30°	3318	3277	3221
35°	3172	3111	3009
40°	2970	2888	2745
45°	2758	2634	2443
50°	2502	2346	2127
55°	2263	2072	1859
60°	2032	1816	1657
65°	1824	1622	1587
70°	1684	1510	1526
75°	1607	1514	1600
80°	1626	1615	1743
85°	1683	1661	1853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.8	4.2
10°-20°	361.4	12.0
20°-30°	527.8	17.5
30°-40°	588.1	19.5
40°-50°	529.9	17.6
50°-60°	396.1	13.2
60°-70°	261.3	8.7
70°-80°	159.5	5.3
80°-90°	59.2	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°	1017.0	33.8
0°-40°	1605.1	53.3
0°-60°	2531.1	84.1
0°-90°	3011.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3011.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1354	1354	1354	1354	1354	
5°	1349	1347	1344	1351	1344	128
15°	1288	1283	1280	1288	1278	362
25°	1155	1150	1147	1149	1139	531
35°	966	957	947	930	916	602
45°	725	717	692	660	642	558
55°	482	475	442	405	396	432
65°	286	278	255	244	249	287
75°	155	152	146	150	154	165
85°	54	52	54	59	60	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1354.1	1354.1	1354.1	1354.1	1354.1
2.5°	1359.6	1353.4	1347.9	1356.2	1351.4
5°	1348.6	1347.2	1343.8	1350.7	1344.5
7.5°	1341.7	1336.9	1332.7	1341.0	1334.1
10°	1326.5	1323.8	1320.3	1327.2	1319.6
12.5°	1307.9	1305.1	1301.7	1310.0	1301.7
15°	1287.9	1283.0	1280.3	1287.9	1278.2
17.5°	1258.9	1256.8	1252.7	1260.3	1250.6
20°	1232.7	1225.1	1222.3	1227.8	1220.9
22.5°	1194.7	1189.2	1188.5	1191.9	1180.2
25°	1154.7	1150.5	1147.1	1149.1	1138.8
27.5°	1112.6	1107.0	1102.9	1102.2	1091.2
30°	1067.7	1060.8	1054.6	1049.1	1036.6
32.5°	1018.7	1010.4	1002.1	993.2	980.0
35°	965.6	957.3	946.9	930.4	915.9
37.5°	909.7	900.0	883.4	864.1	849.6
40°	845.5	840.6	822.0	797.2	781.3
42.5°	785.4	779.9	756.4	728.8	707.4
45°	724.7	717.1	692.2	660.5	641.9
47.5°	662.6	655.0	627.4	588.0	571.5
50°	597.7	593.6	560.4	524.5	508.0
52.5°	538.3	533.5	499.7	463.8	448.6
55°	482.4	474.8	441.7	405.1	396.2
57.5°	426.5	418.2	387.2	356.1	349.9
60°	377.5	367.2	337.5	313.3	307.8
62.5°	331.3	319.6	294.7	276.1	273.3
65°	286.4	277.5	254.7	244.3	249.2
67.5°	247.8	238.8	222.2	218.1	216.7
70°	214.0	205.7	191.9	193.2	193.9
72.5°	182.9	178.1	167.7	171.2	173.9
75°	154.6	151.8	145.6	150.5	153.9
77.5°	129.1	127.0	124.2	128.4	133.9
80°	104.9	103.5	104.2	107.0	112.5
82.5°	80.8	78.0	80.1	85.6	89.0
85°	54.5	52.5	53.8	59.4	60.0
87.5°	25.5	25.5	24.8	29.0	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)