

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: P291887

Luminaire Tested: **22GR-LD5-28-F1-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291887
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-L92765-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: 2577.0 lumens
Efficiency: N/A
Efficacy: 115.5 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

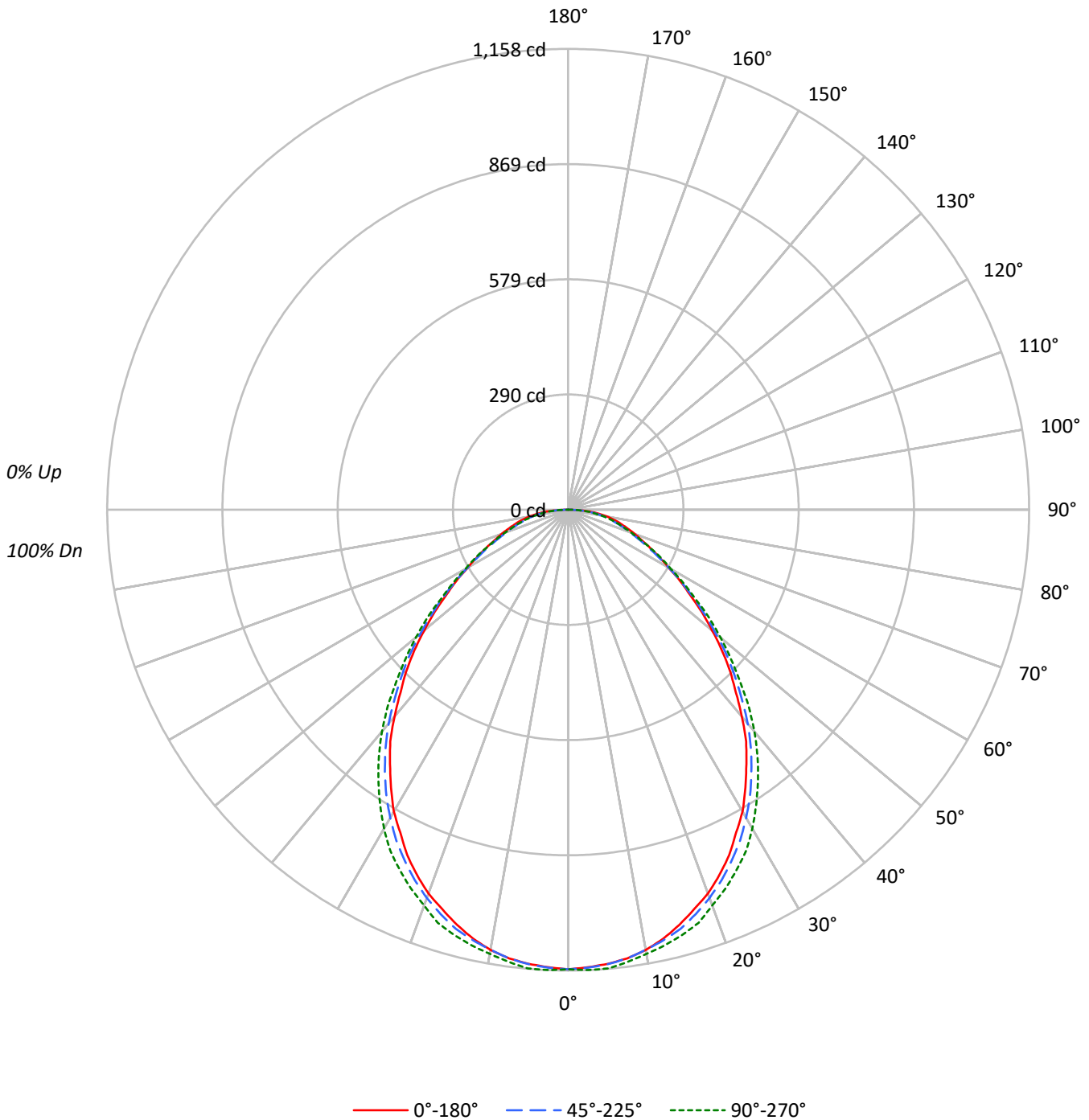
Input Watts (W): 22.32
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3108	3108	3108
5°	3094	3097	3126
10°	3070	3068	3097
15°	3008	3037	3082
20°	2939	2973	3031
25°	2842	2888	2968
30°	2722	2777	2875
35°	2563	2637	2730
40°	2385	2466	2556
45°	2189	2253	2323
50°	1975	2025	2089
55°	1752	1794	1825
60°	1570	1574	1605
65°	1447	1398	1447
70°	1397	1294	1332
75°	1421	1267	1292
80°	1531	1330	1330
85°	1698	1408	1389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.9	4.2
10°-20°	307.3	11.9
20°-30°	448.4	17.4
30°-40°	502.1	19.5
40°-50°	456.9	17.7
50°-60°	343.9	13.3
60°-70°	224.4	8.7
70°-80°	134.6	5.2
80°-90°	50.5	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°	864.6	33.6
0°-40°	1366.7	53.0
0°-60°	2167.5	84.1
0°-90°	2577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2577.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1145	1144	1146	1151	1157	109
15°	1080	1081	1090	1099	1106	304
25°	957	960	972	990	1000	439
35°	780	787	803	822	831	488
45°	575	581	592	604	610	443
55°	374	379	382	388	389	338
65°	227	225	220	223	227	227
75°	137	132	122	122	124	145
85°	55	53	46	43	45	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1154.8	1154.8	1154.8	1154.8	1154.8
2.5°	1150.7	1150.1	1151.8	1154.8	1157.8
5°	1145.3	1143.6	1146.5	1150.7	1157.2
7.5°	1137.1	1137.1	1137.1	1144.7	1145.9
10°	1123.4	1124.6	1122.8	1130.5	1133.5
12.5°	1103.9	1104.5	1108.0	1115.7	1121.1
15°	1079.6	1080.8	1090.3	1099.2	1106.3
17.5°	1052.4	1056.6	1065.4	1079.6	1088.5
20°	1026.4	1031.1	1038.2	1053.6	1058.3
22.5°	993.2	998.5	1007.4	1021.0	1031.1
25°	957.1	960.1	972.5	990.3	999.7
27.5°	913.9	920.4	935.8	954.2	967.2
30°	876.0	879.6	893.8	915.1	925.1
32.5°	828.1	838.7	850.6	869.5	879.0
35°	780.1	787.2	802.6	821.6	831.0
37.5°	734.0	738.1	753.5	769.5	781.3
40°	678.9	686.6	702.0	719.2	727.5
42.5°	623.9	635.1	645.2	662.3	671.2
45°	575.3	581.3	591.9	604.3	610.3
47.5°	524.4	527.4	539.8	547.5	554.0
50°	471.7	475.3	483.6	491.3	499.0
52.5°	423.2	426.2	431.5	438.6	446.3
55°	373.5	378.8	382.4	387.7	388.9
57.5°	333.2	332.7	335.0	339.2	343.3
60°	291.8	293.0	292.4	296.5	298.3
62.5°	257.5	256.9	253.3	259.3	264.0
65°	227.3	224.9	219.6	223.1	227.3
67.5°	199.5	198.3	189.4	192.4	195.9
70°	177.6	173.4	164.5	166.3	169.3
72.5°	156.3	151.5	142.6	143.2	145.0
75°	136.7	132.0	121.9	122.5	124.3
77.5°	118.4	112.5	103.6	102.4	103.6
80°	98.8	93.5	85.8	82.3	85.8
82.5°	78.7	75.8	66.9	63.3	64.5
85°	55.0	53.3	45.6	43.2	45.0
87.5°	25.5	27.2	23.1	21.3	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)