

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: P291837

Luminaire Tested: **22GR-LD5-24-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291837
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-LD5-24-F1-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2074.0 lumens
Efficiency: N/A
Efficacy: 112.1 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

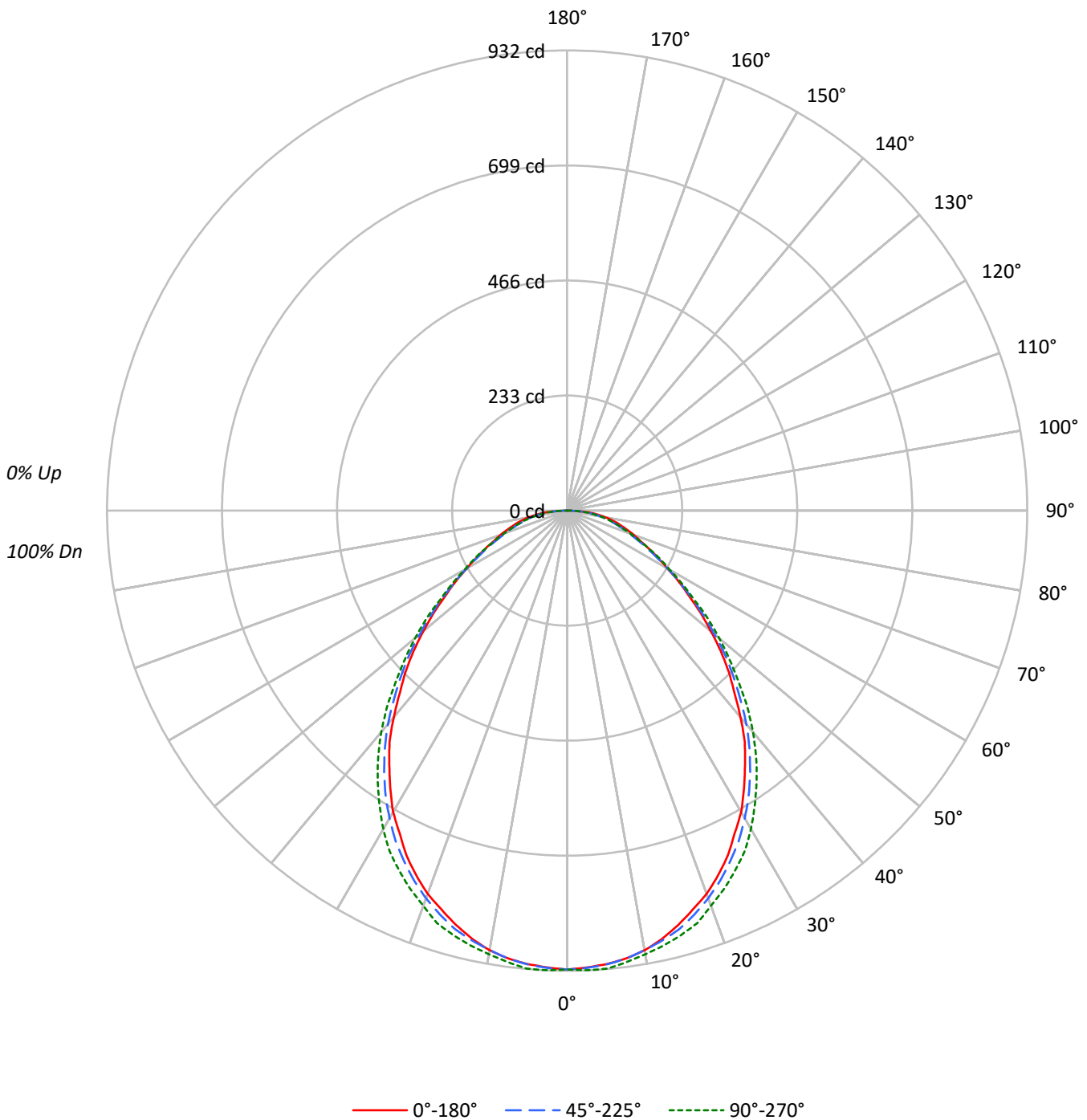
Input Watts (W): 18.507
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2501	2501	2501
5°	2490	2492	2516
10°	2471	2469	2493
15°	2421	2445	2480
20°	2365	2393	2439
25°	2287	2324	2389
30°	2191	2235	2314
35°	2063	2122	2197
40°	1919	1985	2057
45°	1762	1813	1869
50°	1590	1629	1681
55°	1410	1444	1468
60°	1264	1266	1292
65°	1165	1125	1165
70°	1124	1042	1072
75°	1144	1020	1040
80°	1234	1071	1071
85°	1368	1133	1118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	4.2
10°-20°	247.3	11.9
20°-30°	360.9	17.4
30°-40°	404.1	19.5
40°-50°	367.7	17.7
50°-60°	276.8	13.3
60°-70°	180.6	8.7
70°-80°	108.3	5.2
80°-90°	40.6	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°	695.9	33.6
0°-40°	1099.9	53.0
0°-60°	1744.4	84.1
0°-90°	2074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2074.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	922	920	923	926	931	87
15°	869	870	878	885	890	245
25°	770	773	783	797	805	354
35°	628	634	646	661	669	392
45°	463	468	476	486	491	356
55°	301	305	308	312	313	272
65°	183	181	177	180	183	183
75°	110	106	98	99	100	117
85°	44	43	37	35	36	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	929.4	929.4	929.4	929.4	929.4
2.5°	926.1	925.6	927.0	929.4	931.8
5°	921.8	920.4	922.7	926.1	931.3
7.5°	915.1	915.1	915.1	921.3	922.3
10°	904.2	905.1	903.7	909.9	912.3
12.5°	888.4	888.9	891.8	898.0	902.3
15°	868.9	869.9	877.5	884.6	890.3
17.5°	847.0	850.3	857.5	868.9	876.1
20°	826.0	829.8	835.6	847.9	851.8
22.5°	799.4	803.6	810.8	821.7	829.8
25°	770.3	772.7	782.7	797.0	804.6
27.5°	735.5	740.8	753.1	767.9	778.4
30°	705.0	707.9	719.3	736.5	744.6
32.5°	666.4	675.0	684.5	699.8	707.4
35°	627.9	633.6	646.0	661.2	668.8
37.5°	590.7	594.0	606.4	619.3	628.8
40°	546.4	552.6	565.0	578.8	585.5
42.5°	502.1	511.1	519.2	533.1	540.2
45°	463.0	467.8	476.4	486.4	491.1
47.5°	422.1	424.4	434.5	440.6	445.9
50°	379.7	382.5	389.2	395.4	401.6
52.5°	340.6	343.0	347.3	353.0	359.2
55°	300.6	304.9	307.7	312.0	313.0
57.5°	268.2	267.7	269.6	273.0	276.3
60°	234.9	235.8	235.3	238.7	240.1
62.5°	207.2	206.7	203.9	208.7	212.5
65°	182.9	181.0	176.7	179.6	182.9
67.5°	160.5	159.6	152.4	154.8	157.7
70°	142.9	139.6	132.4	133.9	136.2
72.5°	125.8	122.0	114.8	115.3	116.7
75°	110.0	106.2	98.1	98.6	100.0
77.5°	95.3	90.5	83.4	82.4	83.4
80°	79.6	75.3	69.1	66.2	69.1
82.5°	63.4	61.0	53.8	51.0	51.9
85°	44.3	42.9	36.7	34.8	36.2
87.5°	20.5	21.9	18.6	17.1	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)