

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: P291839

Luminaire Tested: **22GR-LD5-24-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291839
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-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2279.0 lumens
Efficiency: N/A
Efficacy: 120.7 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

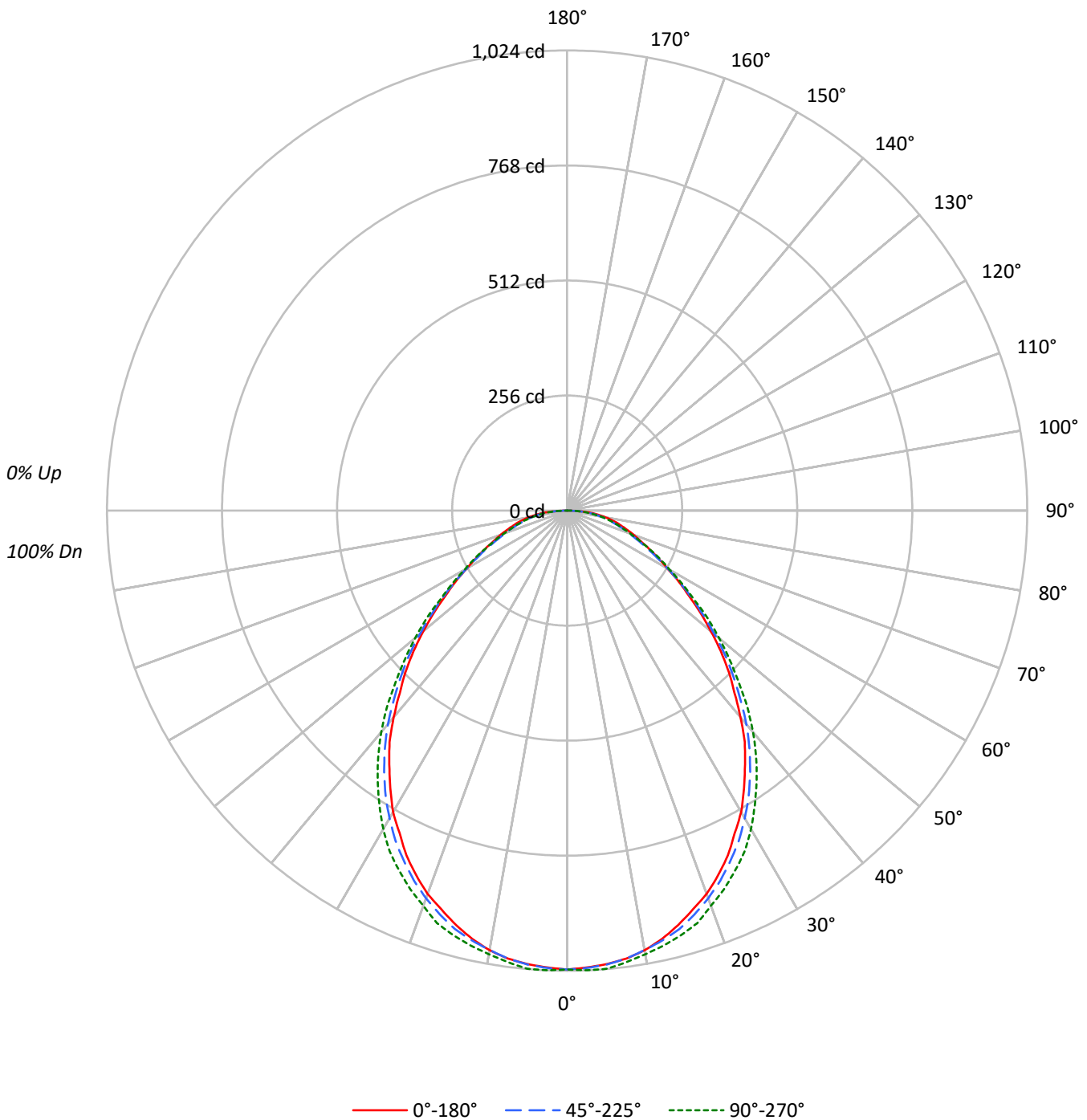
Input Watts (W): 18.879
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2748	2748	2748
5°	2736	2739	2764
10°	2715	2713	2739
15°	2660	2686	2725
20°	2599	2629	2680
25°	2513	2553	2625
30°	2407	2456	2542
35°	2266	2332	2414
40°	2109	2181	2260
45°	1936	1992	2054
50°	1747	1791	1847
55°	1550	1587	1613
60°	1389	1392	1420
65°	1280	1237	1280
70°	1235	1145	1178
75°	1257	1121	1143
80°	1354	1176	1176
85°	1504	1244	1229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.3	4.2
10°-20°	271.7	11.9
20°-30°	396.6	17.4
30°-40°	444.0	19.5
40°-50°	404.1	17.7
50°-60°	304.1	13.3
60°-70°	198.5	8.7
70°-80°	119.0	5.2
80°-90°	44.6	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°	764.6	33.6
0°-40°	1208.6	53.0
0°-60°	1916.9	84.1
0°-90°	2279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2279.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1021	1021	1021	1021	1021	
5°	1013	1011	1014	1018	1023	96
15°	955	956	964	972	978	269
25°	846	849	860	876	884	389
35°	690	696	710	727	735	431
45°	509	514	524	534	540	392
55°	330	335	338	343	344	298
65°	201	199	194	197	201	201
75°	121	117	108	108	110	128
85°	49	47	40	38	40	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1021.3	1021.3	1021.3	1021.3	1021.3
2.5°	1017.6	1017.1	1018.7	1021.3	1023.9
5°	1012.9	1011.3	1013.9	1017.6	1023.4
7.5°	1005.6	1005.6	1005.6	1012.4	1013.4
10°	993.5	994.6	993.0	999.8	1002.4
12.5°	976.3	976.8	979.9	986.7	991.4
15°	954.8	955.8	964.2	972.1	978.3
17.5°	930.7	934.4	942.2	954.8	962.6
20°	907.7	911.9	918.1	931.8	935.9
22.5°	878.4	883.1	890.9	903.0	911.9
25°	846.4	849.1	860.0	875.7	884.1
27.5°	808.2	814.0	827.6	843.8	855.3
30°	774.7	777.9	790.4	809.3	818.2
32.5°	732.3	741.7	752.2	769.0	777.3
35°	689.9	696.2	709.8	726.6	734.9
37.5°	649.1	652.8	666.4	680.5	691.0
40°	600.4	607.2	620.8	636.0	643.3
42.5°	551.7	561.7	570.6	585.8	593.6
45°	508.8	514.0	523.5	534.5	539.7
47.5°	463.8	466.4	477.4	484.2	490.0
50°	417.2	420.3	427.7	434.5	441.3
52.5°	374.3	376.9	381.6	387.9	394.7
55°	330.3	335.0	338.2	342.9	343.9
57.5°	294.7	294.2	296.3	299.9	303.6
60°	258.1	259.1	258.6	262.3	263.8
62.5°	227.7	227.2	224.0	229.3	233.5
65°	201.0	198.9	194.2	197.3	201.0
67.5°	176.4	175.4	167.5	170.1	173.3
70°	157.0	153.4	145.5	147.1	149.7
72.5°	138.2	134.0	126.2	126.7	128.2
75°	120.9	116.7	107.8	108.4	109.9
77.5°	104.7	99.5	91.6	90.6	91.6
80°	87.4	82.7	75.9	72.8	75.9
82.5°	69.6	67.0	59.2	56.0	57.1
85°	48.7	47.1	40.3	38.2	39.8
87.5°	22.5	24.1	20.4	18.8	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)