

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: P291831

Luminaire Tested: **22GR-LD5-20-F1-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291831
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-LD5-20-F1-UNV-L93050-W2A1-U-3000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1617.0 lumens
Efficiency: N/A
Efficacy: 102.3 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

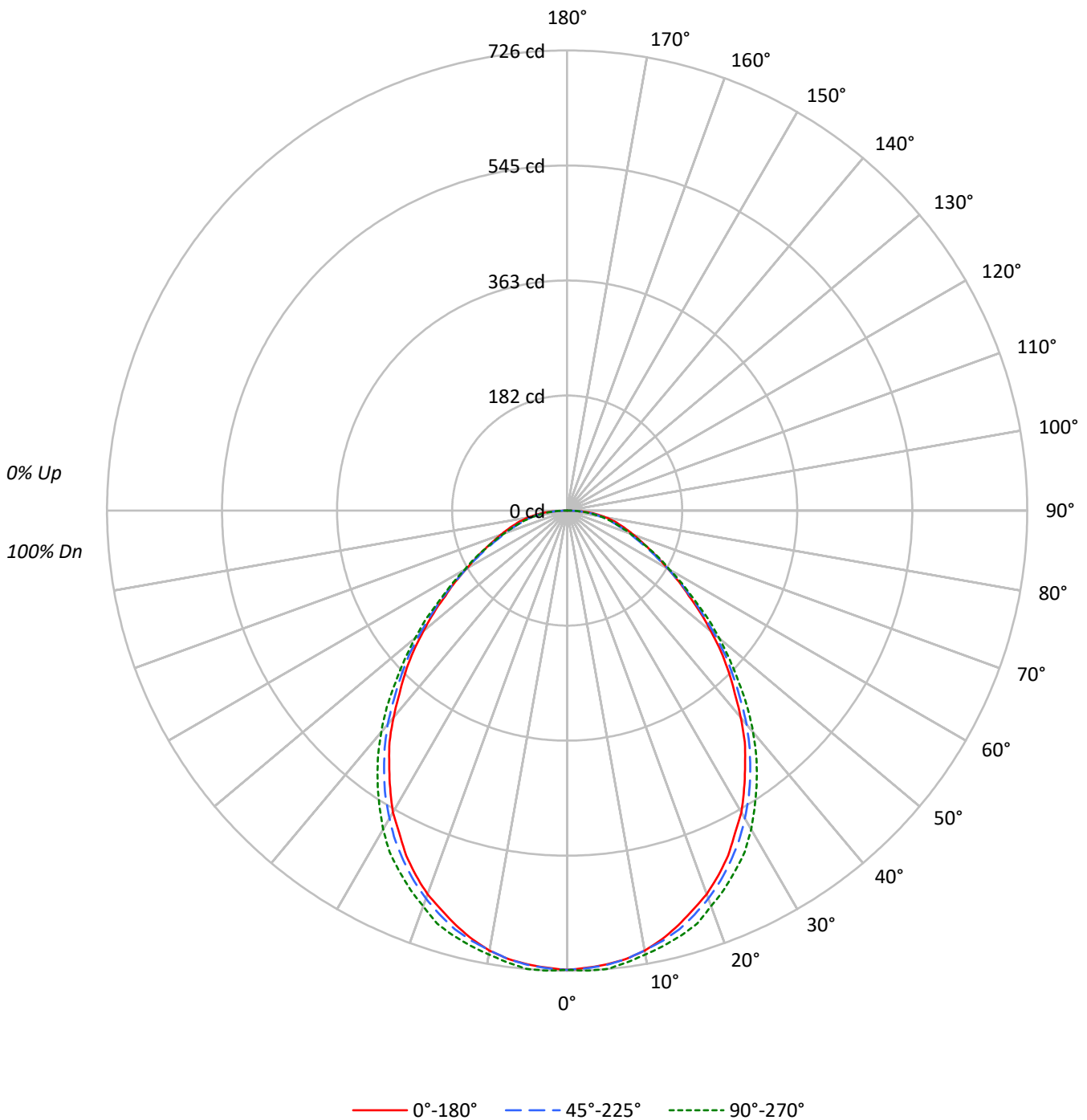
Input Watts (W): 15.81
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1950	1950	1950
5°	1941	1943	1961
10°	1926	1925	1943
15°	1887	1906	1934
20°	1844	1865	1902
25°	1783	1812	1863
30°	1708	1743	1804
35°	1608	1654	1713
40°	1496	1547	1604
45°	1374	1413	1457
50°	1239	1270	1311
55°	1100	1126	1145
60°	985	988	1008
65°	908	877	908
70°	876	813	836
75°	892	795	811
80°	961	835	835
85°	1065	883	871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	4.2
10°-20°	192.8	11.9
20°-30°	281.4	17.4
30°-40°	315.0	19.5
40°-50°	286.7	17.7
50°-60°	215.8	13.3
60°-70°	140.8	8.7
70°-80°	84.5	5.2
80°-90°	31.7	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°	542.5	33.6
0°-40°	857.6	53.0
0°-60°	1360.0	84.1
0°-90°	1617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1617.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	719	718	719	722	726	68
15°	677	678	684	690	694	191
25°	601	602	610	621	627	276
35°	490	494	504	516	522	306
45°	361	365	371	379	383	278
55°	234	238	240	243	244	212
65°	143	141	138	140	143	143
75°	86	83	76	77	78	91
85°	34	33	29	27	28	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	724.6	724.6	724.6	724.6	724.6
2.5°	722.0	721.6	722.8	724.6	726.5
5°	718.7	717.6	719.4	722.0	726.1
7.5°	713.5	713.5	713.5	718.3	719.0
10°	704.9	705.7	704.6	709.4	711.2
12.5°	692.7	693.0	695.3	700.1	703.4
15°	677.4	678.2	684.1	689.7	694.2
17.5°	660.4	663.0	668.5	677.4	683.0
20°	644.0	647.0	651.4	661.1	664.1
22.5°	623.2	626.6	632.1	640.7	647.0
25°	600.6	602.4	610.2	621.4	627.3
27.5°	573.5	577.5	587.2	598.7	606.9
30°	549.7	551.9	560.8	574.2	580.5
32.5°	519.6	526.3	533.7	545.6	551.5
35°	489.5	494.0	503.6	515.5	521.5
37.5°	460.5	463.1	472.8	482.8	490.3
40°	426.0	430.8	440.5	451.3	456.5
42.5°	391.5	398.5	404.8	415.6	421.2
45°	361.0	364.7	371.4	379.2	382.9
47.5°	329.1	330.9	338.7	343.6	347.6
50°	296.0	298.2	303.4	308.3	313.1
52.5°	265.6	267.4	270.8	275.2	280.0
55°	234.4	237.7	239.9	243.3	244.0
57.5°	209.1	208.7	210.2	212.8	215.4
60°	183.1	183.8	183.5	186.1	187.2
62.5°	161.6	161.2	159.0	162.7	165.6
65°	142.6	141.1	137.8	140.0	142.6
67.5°	125.2	124.4	118.8	120.7	122.9
70°	111.4	108.8	103.3	104.4	106.2
72.5°	98.1	95.1	89.5	89.9	91.0
75°	85.8	82.8	76.5	76.9	78.0
77.5°	74.3	70.6	65.0	64.3	65.0
80°	62.0	58.7	53.9	51.6	53.9
82.5°	49.4	47.5	42.0	39.7	40.5
85°	34.5	33.4	28.6	27.1	28.2
87.5°	16.0	17.1	14.5	13.4	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)