

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: P291870

Luminaire Tested: **22GR-LD5-20-F1-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291870
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-L92765-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: 1884.0 lumens
Efficiency: N/A
Efficacy: 119.9 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

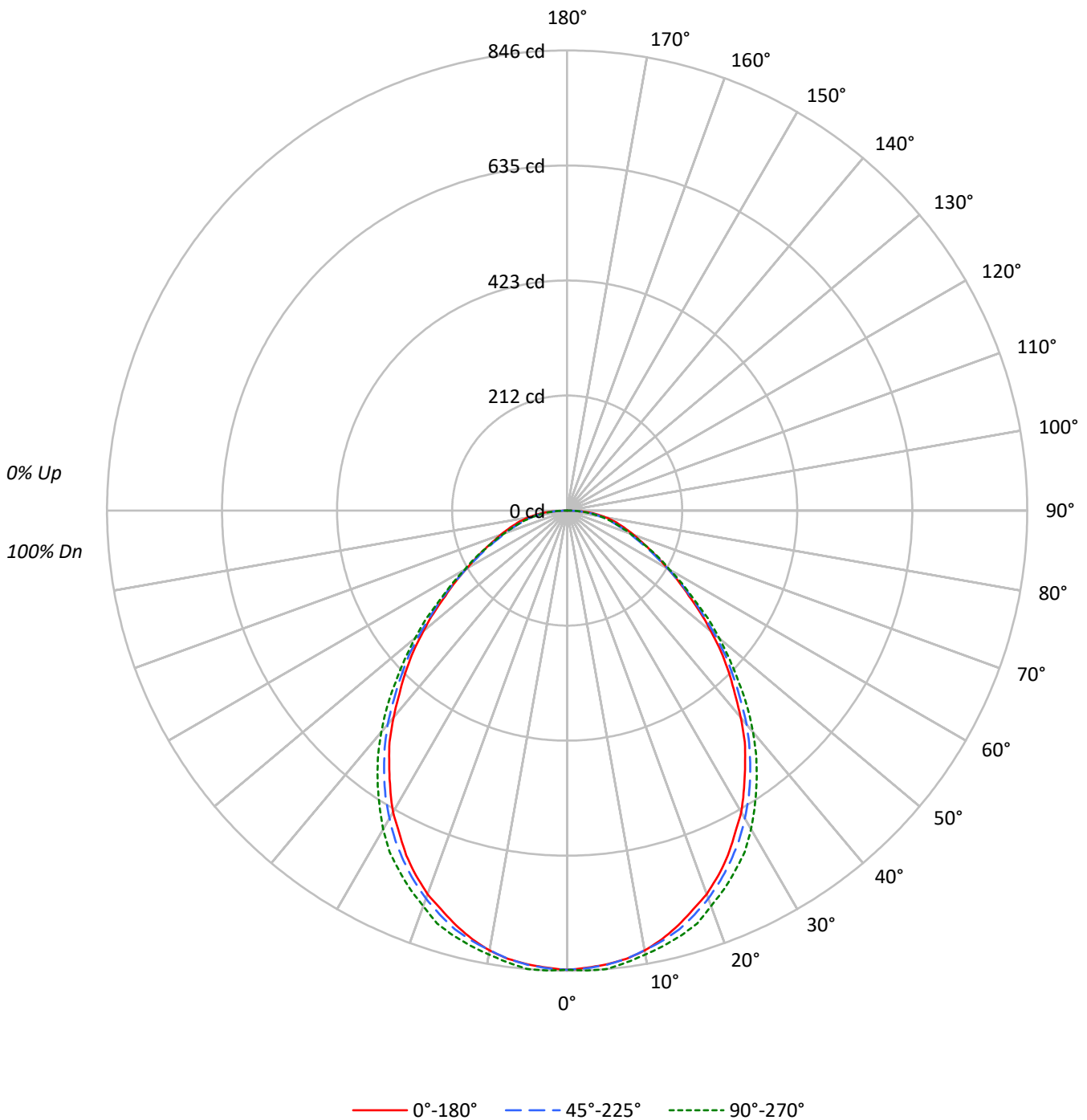
Input Watts (W): 15.717
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2272	2272	2272
5°	2262	2264	2285
10°	2244	2243	2264
15°	2199	2221	2253
20°	2149	2174	2216
25°	2078	2111	2170
30°	1990	2030	2102
35°	1873	1928	1996
40°	1743	1803	1868
45°	1601	1647	1698
50°	1444	1480	1527
55°	1281	1311	1334
60°	1148	1151	1174
65°	1058	1022	1058
70°	1021	947	974
75°	1040	926	945
80°	1120	972	972
85°	1241	1028	1016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.6	4.2
10°-20°	224.6	11.9
20°-30°	327.8	17.4
30°-40°	367.0	19.5
40°-50°	334.0	17.7
50°-60°	251.4	13.3
60°-70°	164.1	8.7
70°-80°	98.4	5.2
80°-90°	36.9	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°	632.1	33.6
0°-40°	999.2	53.0
0°-60°	1584.6	84.1
0°-90°	1884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	837	836	838	841	846	79
15°	789	790	797	804	809	222
25°	700	702	711	724	731	321
35°	570	576	587	601	608	356
45°	421	425	433	442	446	324
55°	273	277	280	283	284	247
65°	166	164	160	163	166	166
75°	100	96	89	90	91	106
85°	40	39	33	32	33	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	844.3	844.3	844.3	844.3	844.3
2.5°	841.2	840.8	842.1	844.3	846.4
5°	837.3	836.0	838.2	841.2	846.0
7.5°	831.3	831.3	831.3	836.9	837.8
10°	821.3	822.2	820.9	826.5	828.7
12.5°	807.0	807.5	810.1	815.7	819.6
15°	789.3	790.2	797.1	803.6	808.8
17.5°	769.4	772.4	778.9	789.3	795.8
20°	750.4	753.8	759.0	770.3	773.7
22.5°	726.1	730.0	736.5	746.5	753.8
25°	699.7	701.9	711.0	724.0	730.9
27.5°	668.1	672.9	684.2	697.6	707.1
30°	640.4	643.0	653.4	669.0	676.4
32.5°	605.4	613.2	621.8	635.7	642.6
35°	570.3	575.5	586.8	600.6	607.6
37.5°	536.6	539.6	550.9	562.6	571.2
40°	496.3	502.0	513.2	525.8	531.8
42.5°	456.1	464.3	471.7	484.2	490.7
45°	420.6	424.9	432.7	441.8	446.1
47.5°	383.4	385.6	394.7	400.3	405.0
50°	344.9	347.5	353.5	359.2	364.8
52.5°	309.4	311.6	315.5	320.7	326.3
55°	273.1	276.9	279.5	283.4	284.3
57.5°	243.6	243.2	244.9	248.0	251.0
60°	213.3	214.2	213.8	216.8	218.1
62.5°	188.2	187.8	185.2	189.5	193.0
65°	166.2	164.4	160.5	163.1	166.2
67.5°	145.8	145.0	138.5	140.6	143.2
70°	129.8	126.8	120.3	121.6	123.8
72.5°	114.2	110.8	104.3	104.7	106.0
75°	100.0	96.5	89.1	89.6	90.9
77.5°	86.5	82.2	75.7	74.9	75.7
80°	72.3	68.4	62.7	60.1	62.7
82.5°	57.6	55.4	48.9	46.3	47.2
85°	40.2	38.9	33.3	31.6	32.9
87.5°	18.6	19.9	16.9	15.6	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)