

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: P291834

Luminaire Tested: **22GR-LD5-20-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291834
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-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: 1942.0 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

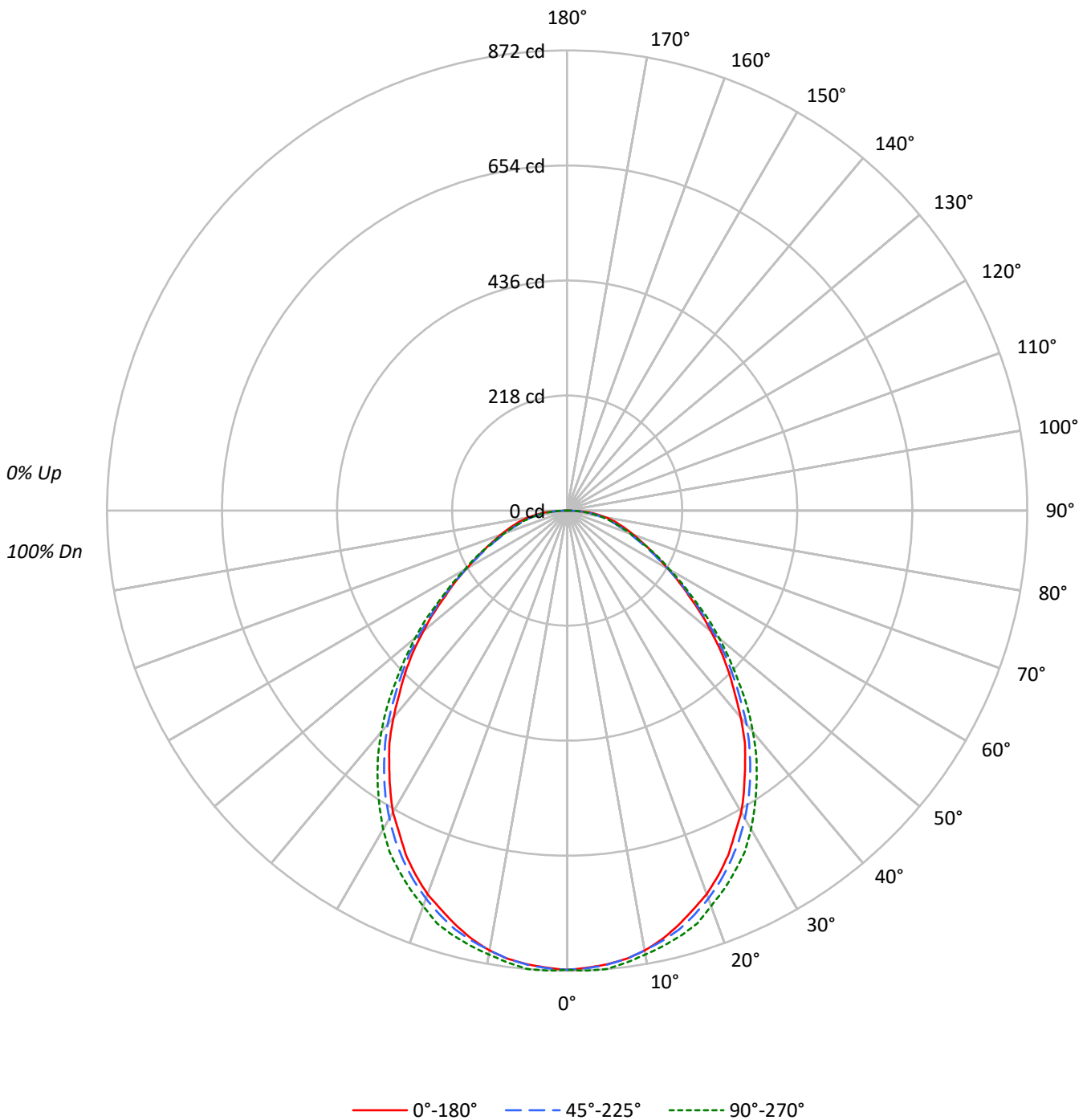
Input Watts (W): 16.089
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2342	2342	2342
5°	2331	2334	2355
10°	2313	2312	2334
15°	2267	2289	2323
20°	2215	2241	2284
25°	2142	2176	2237
30°	2051	2093	2166
35°	1931	1987	2057
40°	1797	1858	1926
45°	1650	1698	1750
50°	1488	1526	1574
55°	1321	1352	1375
60°	1183	1186	1210
65°	1091	1054	1091
70°	1053	976	1004
75°	1071	955	974
80°	1155	1003	1003
85°	1281	1059	1047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	4.2
10°-20°	231.5	11.9
20°-30°	337.9	17.4
30°-40°	378.3	19.5
40°-50°	344.3	17.7
50°-60°	259.2	13.3
60°-70°	169.1	8.7
70°-80°	101.4	5.2
80°-90°	38.0	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°	651.6	33.6
0°-40°	1029.9	53.0
0°-60°	1633.4	84.1
0°-90°	1942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	863	862	864	867	872	82
15°	814	814	822	828	834	229
25°	721	724	733	746	753	331
35°	588	593	605	619	626	367
45°	434	438	446	455	460	334
55°	282	286	288	292	293	254
65°	171	170	166	168	171	171
75°	103	100	92	92	94	109
85°	42	40	34	33	34	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	870.3	870.3	870.3	870.3	870.3
2.5°	867.1	866.7	868.0	870.3	872.5
5°	863.1	861.8	864.0	867.1	872.0
7.5°	856.9	856.9	856.9	862.7	863.6
10°	846.6	847.5	846.2	852.0	854.2
12.5°	831.9	832.3	835.0	840.8	844.8
15°	813.6	814.5	821.6	828.3	833.7
17.5°	793.1	796.2	802.9	813.6	820.3
20°	773.5	777.0	782.4	794.0	797.5
22.5°	748.5	752.5	759.2	769.4	777.0
25°	721.3	723.5	732.9	746.2	753.4
27.5°	688.7	693.6	705.2	719.0	728.9
30°	660.2	662.8	673.5	689.6	697.2
32.5°	624.0	632.1	641.0	655.3	662.4
35°	587.9	593.3	604.8	619.1	626.3
37.5°	553.1	556.2	567.8	579.9	588.8
40°	511.6	517.4	529.0	542.0	548.2
42.5°	470.1	478.6	486.2	499.1	505.8
45°	433.6	438.0	446.1	455.4	459.9
47.5°	395.2	397.4	406.8	412.6	417.5
50°	355.5	358.2	364.4	370.2	376.0
52.5°	318.9	321.2	325.2	330.5	336.3
55°	281.5	285.5	288.2	292.2	293.1
57.5°	251.1	250.7	252.5	255.6	258.7
60°	219.9	220.8	220.4	223.5	224.8
62.5°	194.0	193.6	190.9	195.4	198.9
65°	171.3	169.5	165.5	168.2	171.3
67.5°	150.3	149.4	142.7	145.0	147.6
70°	133.8	130.7	124.0	125.3	127.6
72.5°	117.8	114.2	107.5	107.9	109.3
75°	103.0	99.5	91.9	92.3	93.7
77.5°	89.2	84.8	78.1	77.2	78.1
80°	74.5	70.5	64.7	62.0	64.7
82.5°	59.3	57.1	50.4	47.7	48.6
85°	41.5	40.1	34.3	32.6	33.9
87.5°	19.2	20.5	17.4	16.1	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)