

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: P291832

Luminaire Tested: **22GR-LD5-20-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291832
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-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: 1767.0 lumens
Efficiency: N/A
Efficacy: 112.4 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

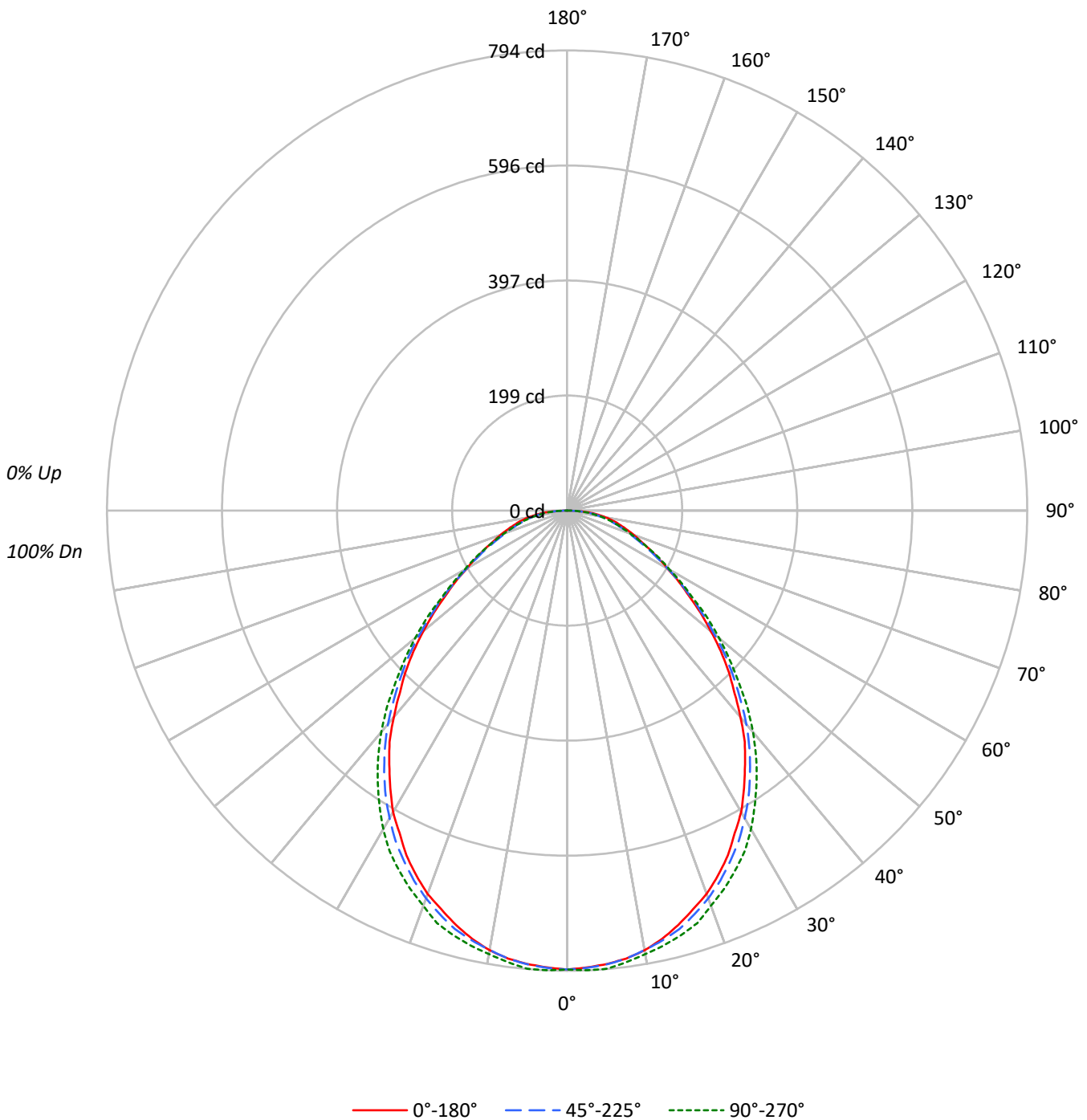
Input Watts (W): 15.717
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2131	2131	2131
5°	2121	2123	2143
10°	2105	2104	2124
15°	2062	2083	2113
20°	2015	2039	2078
25°	1949	1980	2035
30°	1867	1904	1971
35°	1757	1808	1872
40°	1635	1691	1752
45°	1501	1545	1592
50°	1354	1388	1432
55°	1202	1230	1251
60°	1077	1079	1101
65°	992	959	992
70°	958	887	913
75°	975	869	886
80°	1051	911	911
85°	1164	966	951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	4.2
10°-20°	210.7	11.9
20°-30°	307.5	17.4
30°-40°	344.2	19.5
40°-50°	313.3	17.7
50°-60°	235.8	13.3
60°-70°	153.9	8.7
70°-80°	92.3	5.2
80°-90°	34.6	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°	592.9	33.6
0°-40°	937.1	53.0
0°-60°	1486.2	84.1
0°-90°	1767.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1767.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	785	784	786	789	794	75
15°	740	741	748	754	759	208
25°	656	658	667	679	686	301
35°	535	540	550	563	570	334
45°	394	399	406	414	418	304
55°	256	260	262	266	267	231
65°	156	154	151	153	156	156
75°	94	90	84	84	85	99
85°	38	36	31	30	31	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	791.8	791.8	791.8	791.8	791.8
2.5°	789.0	788.6	789.8	791.8	793.9
5°	785.3	784.1	786.1	789.0	793.5
7.5°	779.7	779.7	779.7	784.9	785.7
10°	770.3	771.1	769.9	775.2	777.2
12.5°	756.9	757.3	759.8	765.0	768.7
15°	740.3	741.1	747.6	753.7	758.6
17.5°	721.6	724.5	730.5	740.3	746.4
20°	703.8	707.0	711.9	722.4	725.7
22.5°	681.0	684.7	690.8	700.1	707.0
25°	656.3	658.3	666.8	679.0	685.5
27.5°	626.6	631.1	641.7	654.2	663.2
30°	600.7	603.1	612.8	627.5	634.4
32.5°	567.8	575.1	583.2	596.2	602.7
35°	534.9	539.8	550.3	563.3	569.8
37.5°	503.3	506.1	516.7	527.6	535.7
40°	465.5	470.8	481.3	493.1	498.8
42.5°	427.8	435.5	442.4	454.2	460.2
45°	394.5	398.6	405.9	414.4	418.4
47.5°	359.6	361.6	370.1	375.4	379.9
50°	323.5	325.9	331.6	336.9	342.1
52.5°	290.2	292.2	295.9	300.7	306.0
55°	256.1	259.7	262.2	265.8	266.6
57.5°	228.5	228.1	229.7	232.6	235.4
60°	200.1	200.9	200.5	203.3	204.6
62.5°	176.5	176.1	173.7	177.8	181.0
65°	155.8	154.2	150.6	153.0	155.8
67.5°	136.8	136.0	129.9	131.9	134.3
70°	121.8	118.9	112.8	114.0	116.1
72.5°	107.1	103.9	97.8	98.2	99.4
75°	93.8	90.5	83.6	84.0	85.2
77.5°	81.2	77.1	71.0	70.2	71.0
80°	67.8	64.1	58.8	56.4	58.8
82.5°	54.0	51.9	45.9	43.4	44.2
85°	37.7	36.5	31.3	29.6	30.8
87.5°	17.5	18.7	15.8	14.6	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)