

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: P291833

Luminaire Tested: **22GR-LD5-20-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291833
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-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1909.0 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

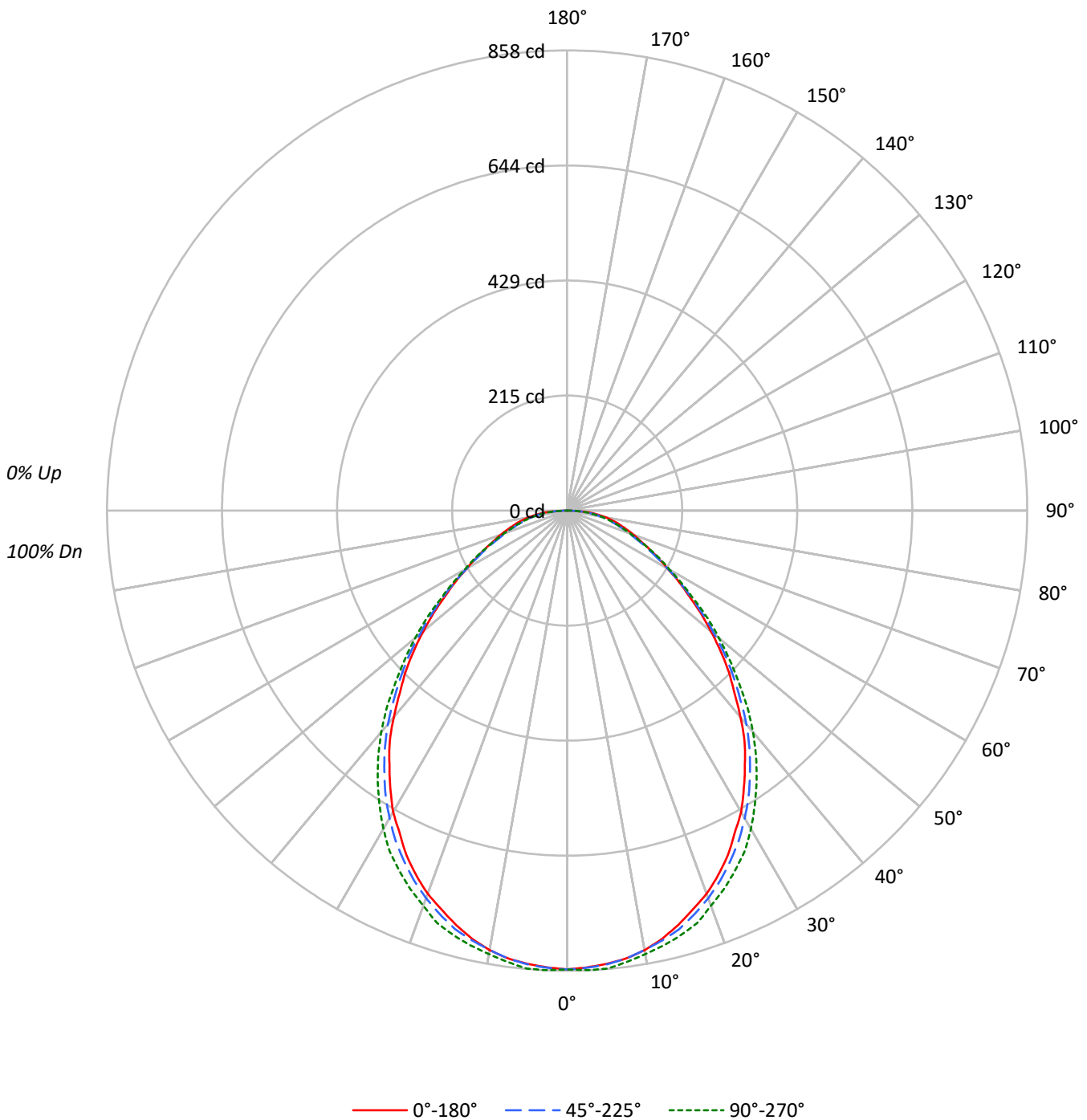
Input Watts (W): 15.81
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P291833

CATALOG NUMBER: 22GR-LD5-20-F1-UNV-L93050-W2A1-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P291833

CATALOG NUMBER: 22GR-LD5-20-F1-UNV-L93050-W2A1-U-4000K

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°	2302	2302	2302
5°	2292	2294	2316
10°	2274	2273	2294
15°	2228	2250	2283
20°	2177	2202	2245
25°	2105	2139	2199
30°	2016	2057	2129
35°	1898	1953	2022
40°	1767	1827	1893
45°	1622	1669	1721
50°	1463	1500	1547
55°	1298	1329	1352
60°	1164	1166	1189
65°	1072	1036	1072
70°	1035	959	987
75°	1053	939	958
80°	1134	986	986
85°	1260	1044	1028



TEST NUMBER: P291833

CATALOG NUMBER: 22GR-LD5-20-F1-UNV-L93050-W2A1-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.7	4.2
10°-20°	227.6	11.9
20°-30°	332.2	17.4
30°-40°	371.9	19.5
40°-50°	338.5	17.7
50°-60°	254.8	13.3
60°-70°	166.3	8.7
70°-80°	99.7	5.2
80°-90°	37.4	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°	640.5	33.6
0°-40°	1012.4	53.0
0°-60°	1605.6	84.1
0°-90°	1909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1909.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	848	847	849	852	857	80
15°	800	801	808	814	820	225
25°	709	711	720	734	741	326
35°	578	583	595	609	616	361
45°	426	431	438	448	452	328
55°	277	281	283	287	288	250
65°	168	167	163	165	168	168
75°	101	98	90	91	92	107
85°	41	40	34	32	33	42
90°	0	0	0	0	0	



TEST NUMBER: P291833

CATALOG NUMBER: 22GR-LD5-20-F1-UNV-L93050-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	855.5	855.5	855.5	855.5	855.5
2.5°	852.4	852.0	853.3	855.5	857.7
5°	848.4	847.1	849.3	852.4	857.2
7.5°	842.3	842.3	842.3	848.0	848.9
10°	832.2	833.1	831.8	837.5	839.7
12.5°	817.8	818.2	820.8	826.5	830.5
15°	799.8	800.7	807.7	814.2	819.5
17.5°	779.6	782.7	789.3	799.8	806.4
20°	760.3	763.8	769.1	780.5	784.0
22.5°	735.8	739.7	746.3	756.4	763.8
25°	709.0	711.2	720.4	733.6	740.6
27.5°	677.0	681.8	693.2	706.8	716.5
30°	648.9	651.6	662.1	677.9	685.3
32.5°	613.4	621.3	630.1	644.1	651.1
35°	577.9	583.2	594.6	608.6	615.6
37.5°	543.7	546.8	558.2	570.0	578.8
40°	502.9	508.6	520.0	532.7	538.9
42.5°	462.2	470.5	477.9	490.7	497.2
45°	426.2	430.6	438.5	447.7	452.1
47.5°	388.5	390.7	399.9	405.6	410.4
50°	349.5	352.1	358.2	363.9	369.6
52.5°	313.5	315.7	319.6	324.9	330.6
55°	276.7	280.6	283.3	287.2	288.1
57.5°	246.9	246.4	248.2	251.2	254.3
60°	216.2	217.0	216.6	219.7	221.0
62.5°	190.7	190.3	187.7	192.1	195.6
65°	168.4	166.6	162.7	165.3	168.4
67.5°	147.8	146.9	140.3	142.5	145.1
70°	131.5	128.5	121.9	123.2	125.4
72.5°	115.8	112.2	105.7	106.1	107.4
75°	101.3	97.8	90.3	90.8	92.1
77.5°	87.7	83.3	76.7	75.9	76.7
80°	73.2	69.3	63.6	60.9	63.6
82.5°	58.3	56.1	49.5	46.9	47.8
85°	40.8	39.5	33.8	32.0	33.3
87.5°	18.9	20.2	17.1	15.8	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)