

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: P291854

Luminaire Tested: **22GR-LD5-36-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291854
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-LD5-36-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: 3379.0 lumens
Efficiency: N/A
Efficacy: 115.3 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

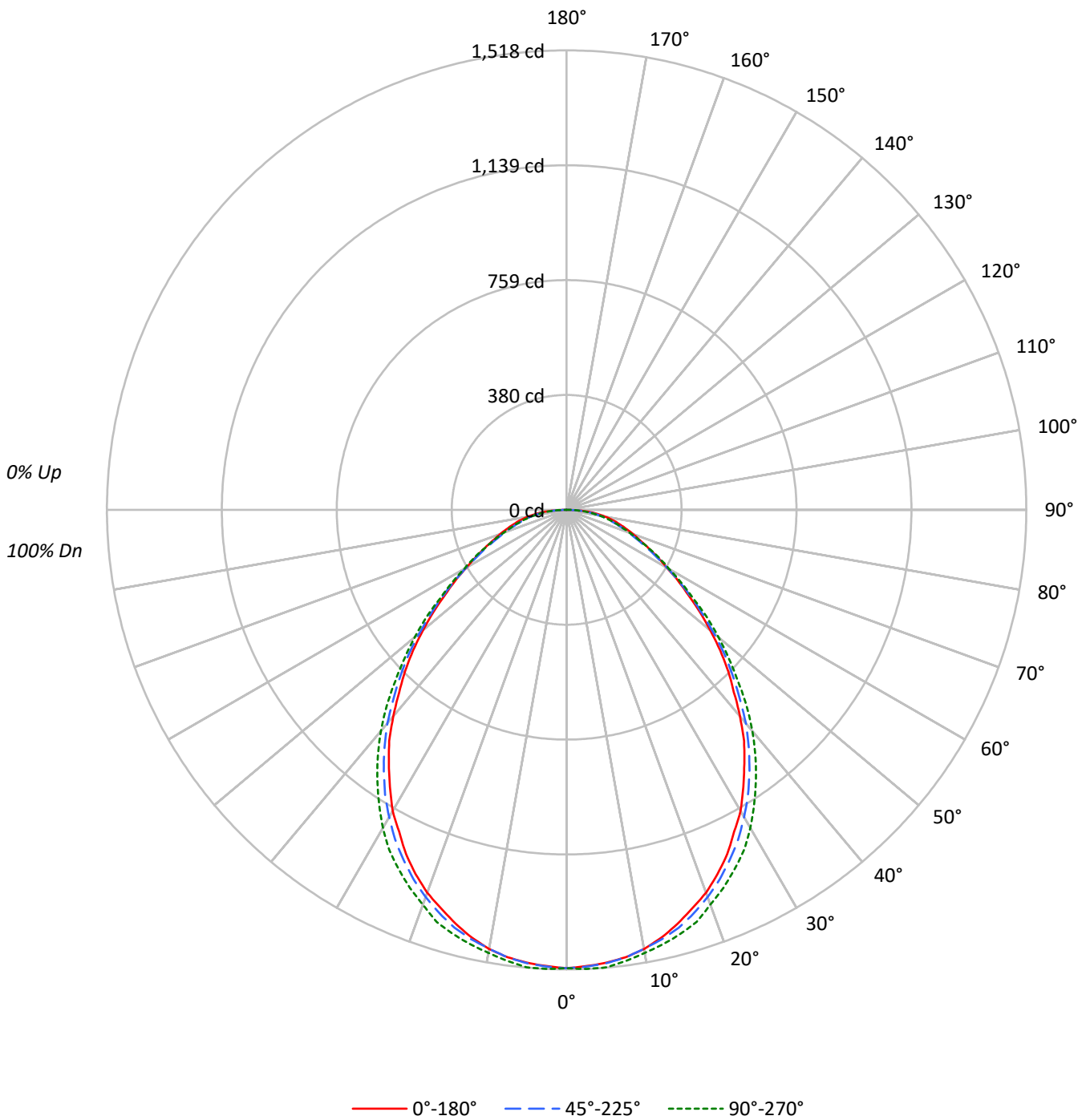
Input Watts (W): 29.295
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P291854

CATALOG NUMBER: 22GR-LD5-36-F1-UNV-L93050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P291854

CATALOG NUMBER: 22GR-LD5-36-F1-UNV-L93050-W2A1-U-4500K

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°	4075	4075	4075
5°	4057	4061	4099
10°	4025	4023	4061
15°	3944	3983	4041
20°	3854	3898	3974
25°	3726	3786	3892
30°	3569	3641	3769
35°	3360	3457	3580
40°	3127	3234	3351
45°	2871	2954	3045
50°	2590	2655	2739
55°	2297	2352	2392
60°	2059	2063	2105
65°	1897	1833	1897
70°	1832	1698	1747
75°	1864	1663	1695
80°	2008	1743	1743
85°	2229	1846	1822



TEST NUMBER: P291854

CATALOG NUMBER: 22GR-LD5-36-F1-UNV-L93050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.8	4.2
10°-20°	402.9	11.9
20°-30°	588.0	17.4
30°-40°	658.3	19.5
40°-50°	599.1	17.7
50°-60°	450.9	13.3
60°-70°	294.3	8.7
70°-80°	176.5	5.2
80°-90°	66.2	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°	1133.7	33.6
0°-40°	1792.0	53.0
0°-60°	2842.1	84.1
0°-90°	3379.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3379.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1514	1514	1514	1514	1514	
5°	1502	1500	1503	1509	1517	142
15°	1416	1417	1430	1441	1451	399
25°	1255	1259	1275	1298	1311	576
35°	1023	1032	1052	1077	1090	639
45°	754	762	776	792	800	581
55°	490	497	501	508	510	443
65°	298	295	288	293	298	298
75°	179	173	160	161	163	190
85°	72	70	60	57	59	74
90°	0	0	0	0	0	



TEST NUMBER: P291854

CATALOG NUMBER: 22GR-LD5-36-F1-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1514.2	1514.2	1514.2	1514.2	1514.2
2.5°	1508.8	1508.0	1510.3	1514.2	1518.1
5°	1501.8	1499.5	1503.3	1508.8	1517.3
7.5°	1490.9	1490.9	1490.9	1501.0	1502.6
10°	1473.1	1474.6	1472.3	1482.4	1486.3
12.5°	1447.5	1448.2	1452.9	1463.0	1470.0
15°	1415.6	1417.2	1429.6	1441.2	1450.6
17.5°	1379.9	1385.4	1397.0	1415.6	1427.3
20°	1345.8	1352.0	1361.3	1381.5	1387.7
22.5°	1302.3	1309.3	1320.9	1338.8	1352.0
25°	1255.0	1258.9	1275.2	1298.4	1310.9
27.5°	1198.3	1206.9	1227.0	1251.1	1268.2
30°	1148.7	1153.3	1171.9	1199.9	1213.1
32.5°	1085.8	1099.8	1115.3	1140.1	1152.5
35°	1022.9	1032.2	1052.4	1077.2	1089.7
37.5°	962.4	967.8	988.0	1009.0	1024.5
40°	890.2	900.3	920.5	943.0	953.8
42.5°	818.0	832.8	846.0	868.5	880.1
45°	754.4	762.1	776.1	792.4	800.2
47.5°	687.6	691.5	707.8	717.9	726.4
50°	618.6	623.2	634.1	644.2	654.3
52.5°	554.9	558.8	565.8	575.1	585.2
55°	489.7	496.7	501.4	508.4	509.9
57.5°	437.0	436.2	439.3	444.7	450.1
60°	382.6	384.2	383.4	388.8	391.2
62.5°	337.6	336.8	332.2	339.9	346.1
65°	298.0	294.9	287.9	292.6	298.0
67.5°	261.6	260.0	248.4	252.2	256.9
70°	232.8	227.4	215.8	218.1	222.0
72.5°	204.9	198.7	187.0	187.8	190.1
75°	179.3	173.1	159.9	160.7	163.0
77.5°	155.2	147.5	135.8	134.3	135.8
80°	129.6	122.6	112.5	107.9	112.5
82.5°	103.2	99.3	87.7	83.0	84.6
85°	72.2	69.9	59.8	56.7	59.0
87.5°	33.4	35.7	30.3	27.9	28.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)