

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: P291789

Luminaire Tested: **22GR-LD5-28-F1-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291789
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-LD5-28-F1-UNV-L82765-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2913.0 lumens
Efficiency: N/A
Efficacy: 130.5 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

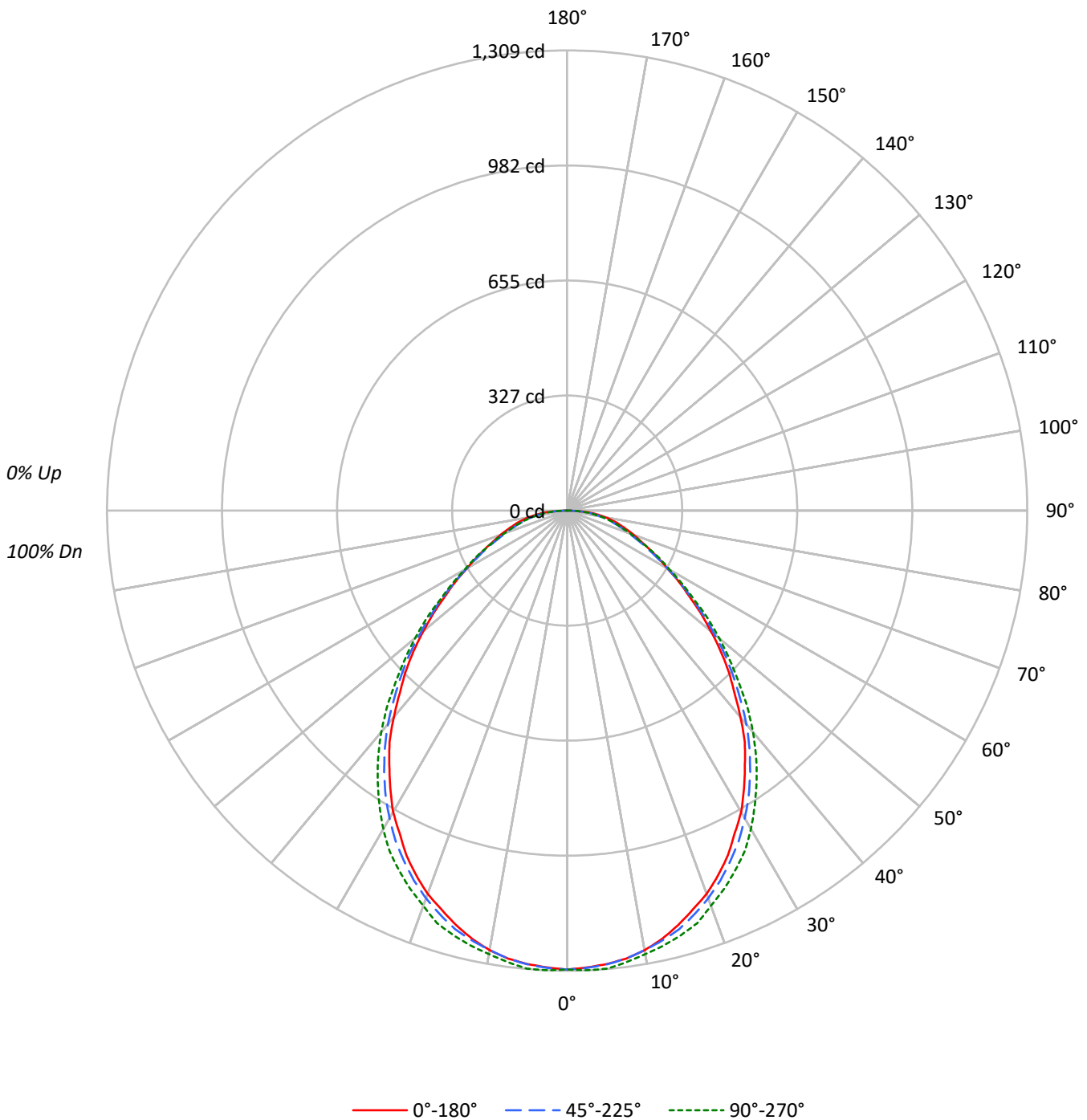
Input Watts (W): 22.32
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3513	3513	3513
5°	3497	3501	3534
10°	3470	3468	3501
15°	3400	3433	3484
20°	3322	3361	3426
25°	3212	3264	3355
30°	3077	3139	3250
35°	2897	2981	3086
40°	2696	2787	2889
45°	2475	2546	2625
50°	2233	2288	2361
55°	1981	2028	2062
60°	1776	1779	1815
65°	1636	1580	1636
70°	1579	1463	1506
75°	1607	1433	1461
80°	1731	1503	1503
85°	1920	1590	1572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	4.2
10°-20°	347.3	11.9
20°-30°	506.9	17.4
30°-40°	567.5	19.5
40°-50°	516.5	17.7
50°-60°	388.7	13.3
60°-70°	253.7	8.7
70°-80°	152.1	5.2
80°-90°	57.1	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°	977.3	33.6
0°-40°	1544.9	53.0
0°-60°	2450.1	84.1
0°-90°	2913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2913.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1305	1305	1305	1305	1305	
5°	1295	1293	1296	1301	1308	123
15°	1220	1222	1232	1242	1250	344
25°	1082	1085	1099	1119	1130	497
35°	882	890	907	929	939	551
45°	650	657	669	683	690	501
55°	422	428	432	438	440	382
65°	257	254	248	252	257	257
75°	155	149	138	138	140	164
85°	62	60	52	49	51	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1305.4	1305.4	1305.4	1305.4	1305.4
2.5°	1300.7	1300.0	1302.0	1305.4	1308.7
5°	1294.7	1292.7	1296.0	1300.7	1308.1
7.5°	1285.3	1285.3	1285.3	1294.0	1295.3
10°	1269.9	1271.3	1269.2	1277.9	1281.3
12.5°	1247.8	1248.5	1252.5	1261.2	1267.2
15°	1220.4	1221.7	1232.4	1242.5	1250.5
17.5°	1189.6	1194.3	1204.3	1220.4	1230.4
20°	1160.2	1165.5	1173.6	1191.0	1196.3
22.5°	1122.7	1128.7	1138.8	1154.2	1165.5
25°	1081.9	1085.3	1099.3	1119.4	1130.1
27.5°	1033.1	1040.4	1057.8	1078.6	1093.3
30°	990.2	994.3	1010.3	1034.4	1045.8
32.5°	936.0	948.1	961.5	982.9	993.6
35°	881.8	889.9	907.3	928.7	939.4
37.5°	829.7	834.3	851.7	869.8	883.2
40°	767.4	776.1	793.5	812.9	822.3
42.5°	705.2	717.9	729.3	748.7	758.7
45°	650.3	657.0	669.1	683.1	689.8
47.5°	592.8	596.2	610.2	618.9	626.3
50°	533.3	537.3	546.6	555.3	564.0
52.5°	478.4	481.7	487.8	495.8	504.5
55°	422.2	428.2	432.2	438.2	439.6
57.5°	376.7	376.0	378.7	383.4	388.1
60°	329.9	331.2	330.5	335.2	337.2
62.5°	291.1	290.4	286.4	293.1	298.4
65°	256.9	254.3	248.2	252.2	256.9
67.5°	225.5	224.1	214.1	217.5	221.5
70°	200.7	196.0	186.0	188.0	191.4
72.5°	176.6	171.3	161.2	161.9	163.9
75°	154.6	149.2	137.8	138.5	140.5
77.5°	133.8	127.1	117.1	115.8	117.1
80°	111.7	105.7	97.0	93.0	97.0
82.5°	89.0	85.6	75.6	71.6	72.9
85°	62.2	60.2	51.5	48.8	50.9
87.5°	28.8	30.8	26.1	24.1	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)