

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: P475907

Luminaire Tested: **22GR-LD5-28-F1-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475907
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-28-F1-UNV-L840-CD1-U
Description: GR 2'X2' LED TROFFER w/ F1 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2893.0 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

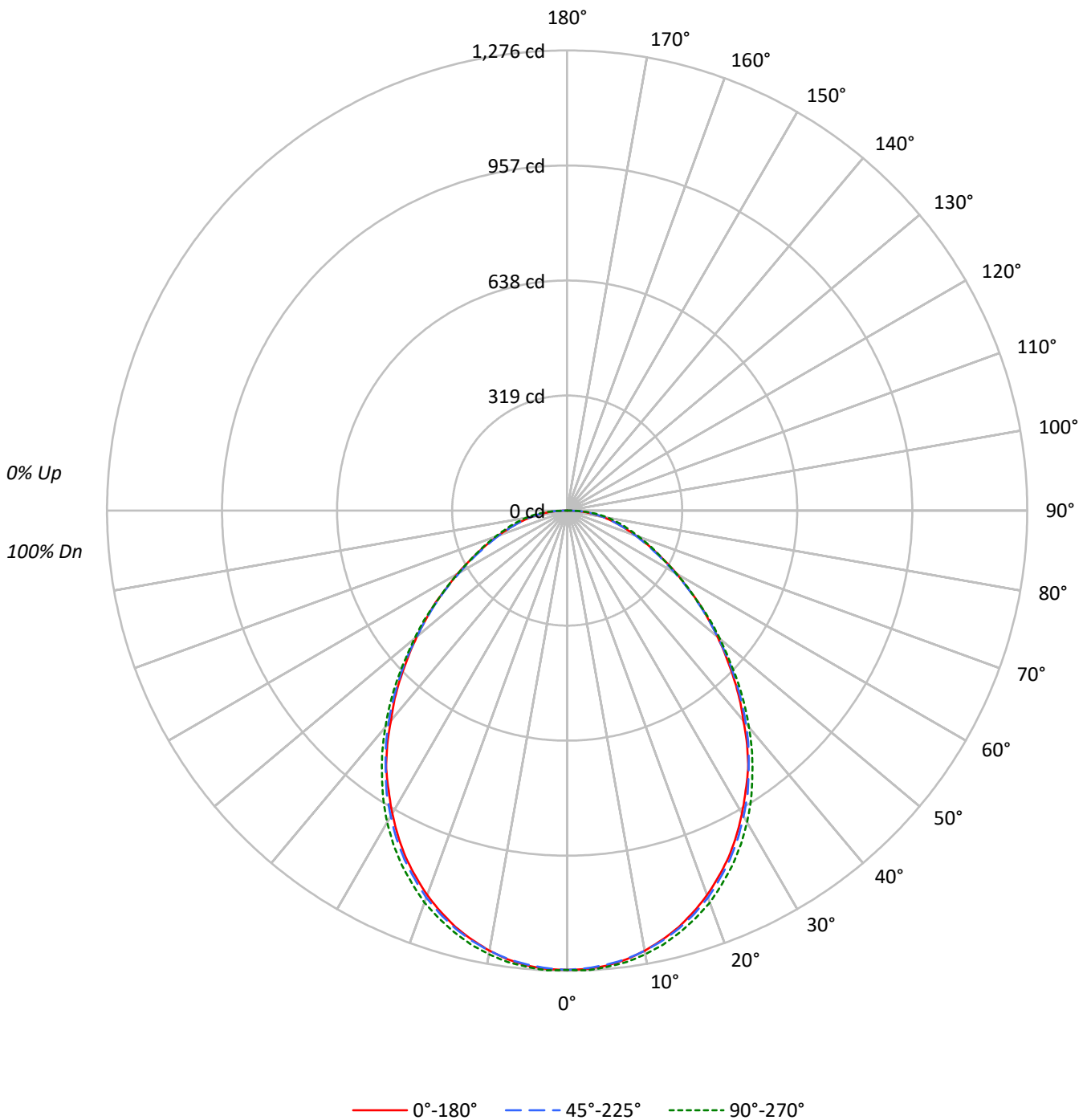
Input Watts (W): 21
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	90	80	73	68	78	71	66	75	70	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32	31
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3427	3427	3427
5°	3421	3414	3431
10°	3387	3387	3414
15°	3331	3341	3372
20°	3249	3270	3312
25°	3148	3170	3220
30°	3014	3040	3101
35°	2874	2882	2942
40°	2670	2709	2756
45°	2479	2503	2540
50°	2278	2278	2314
55°	2089	2066	2078
60°	1891	1858	1885
65°	1725	1686	1740
70°	1593	1584	1661
75°	1535	1522	1674
80°	1550	1550	1777
85°	1621	1695	2035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.1	4.2
10°-20°	338.1	11.7
20°-30°	491.6	17.0
30°-40°	550.3	19.0
40°-50°	507.9	17.6
50°-60°	396.3	13.7
60°-70°	268.3	9.3
70°-80°	160.2	5.5
80°-90°	60.2	2.1
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°	949.8	32.8
0°-40°	1500.1	51.9
0°-60°	2404.3	83.1
0°-90°	2893.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2893.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1274	1274	1274	1274	1274	
5°	1266	1264	1264	1269	1270	120
15°	1196	1196	1199	1207	1210	336
25°	1060	1060	1068	1078	1085	487
35°	875	874	877	891	896	544
45°	652	655	658	662	667	503
55°	445	442	440	443	443	397
65°	271	268	265	270	273	270
75°	148	146	146	155	161	157
85°	52	51	55	63	66	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1273.7	1273.7	1273.7	1273.7	1273.7
2.5°	1272.5	1270.1	1270.1	1273.7	1276.2
5°	1266.4	1264.0	1264.0	1268.9	1270.1
7.5°	1255.4	1254.2	1254.2	1259.1	1262.8
10°	1239.6	1238.4	1239.6	1244.5	1249.3
12.5°	1218.8	1218.8	1221.3	1227.4	1232.3
15°	1195.6	1195.6	1199.3	1206.6	1210.3
17.5°	1166.4	1167.6	1172.5	1181.0	1184.7
20°	1134.6	1137.1	1142.0	1149.3	1156.6
22.5°	1098.0	1100.5	1105.4	1116.3	1121.2
25°	1060.2	1060.2	1067.5	1078.5	1084.6
27.5°	1016.3	1017.5	1024.8	1037.0	1043.1
30°	969.9	973.6	978.5	989.5	998.0
32.5°	921.1	924.8	930.9	943.1	949.2
35°	874.8	873.6	877.2	890.6	895.5
37.5°	819.9	821.1	826.0	835.7	841.8
40°	760.1	766.2	771.1	778.4	784.5
42.5°	707.6	711.3	714.9	722.3	727.2
45°	651.5	655.2	657.6	662.5	667.4
47.5°	596.6	597.8	601.5	603.9	607.6
50°	544.1	545.4	544.1	547.8	552.7
52.5°	492.9	491.7	491.7	492.9	500.2
55°	445.3	441.7	440.4	442.9	442.9
57.5°	392.9	391.6	391.6	390.4	396.5
60°	351.4	347.7	345.3	347.7	350.2
62.5°	308.7	305.0	302.6	307.5	307.5
65°	270.9	268.4	264.8	269.6	273.3
67.5°	234.2	231.8	230.6	236.7	241.6
70°	202.5	201.3	201.3	207.4	211.1
72.5°	173.2	172.0	172.0	180.6	184.2
75°	147.6	146.4	146.4	154.9	161.0
77.5°	122.0	120.8	124.4	131.8	137.9
80°	100.0	98.8	100.0	109.8	114.7
82.5°	75.6	75.6	78.1	87.8	92.7
85°	52.5	51.2	54.9	63.4	65.9
87.5°	26.8	28.1	29.3	34.2	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)