

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: P291841

Luminaire Tested: **22GR-LD5-28-F1-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291841
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-L93050-W2A1-U-3000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2270.0 lumens
Efficiency: N/A
Efficacy: 100.9 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

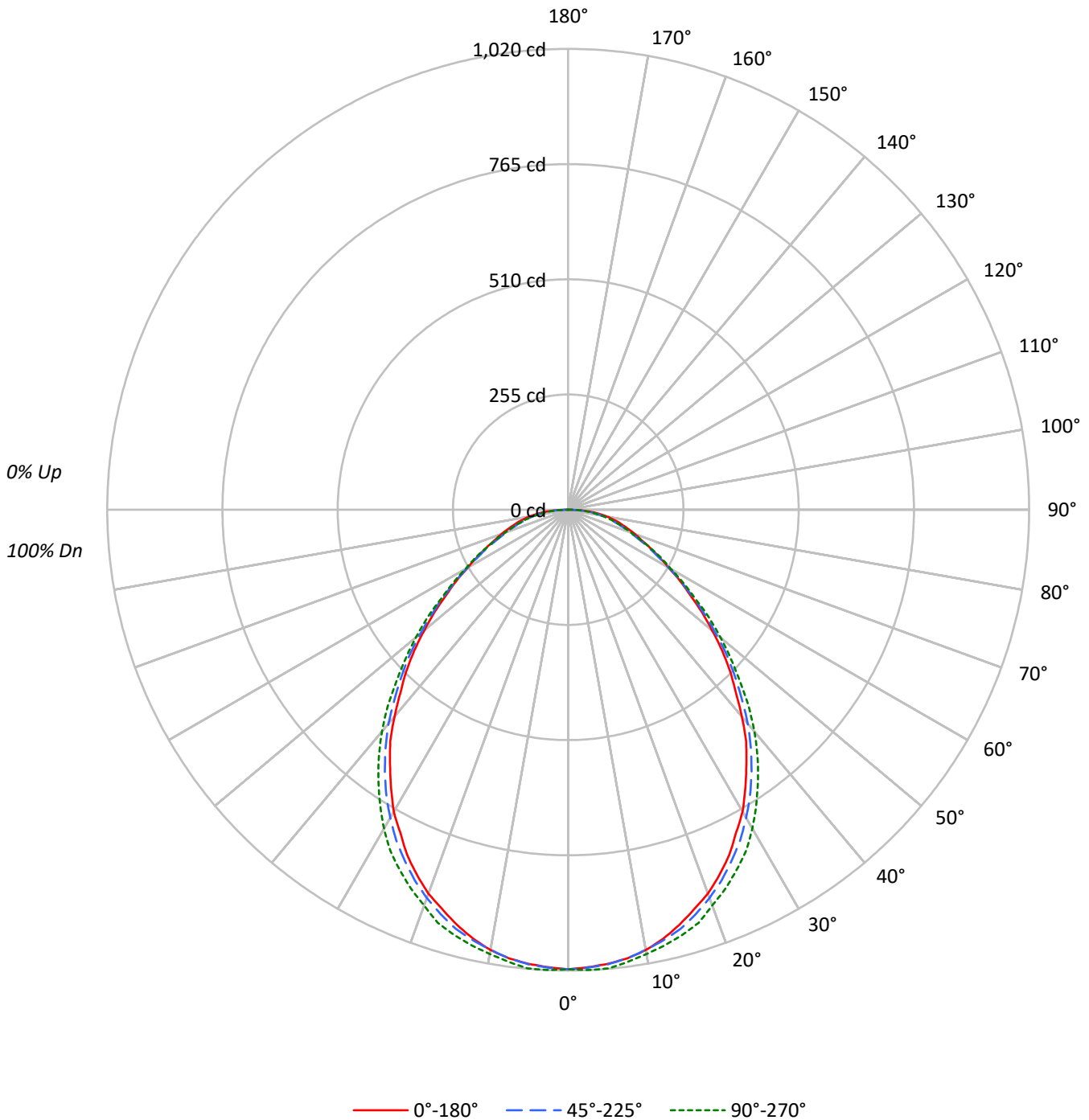
Input Watts (W): 22.506
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2737	2737	2737
5°	2725	2728	2753
10°	2704	2703	2728
15°	2649	2676	2715
20°	2589	2619	2670
25°	2503	2543	2615
30°	2398	2446	2532
35°	2258	2323	2405
40°	2101	2172	2251
45°	1929	1984	2046
50°	1739	1783	1840
55°	1544	1580	1607
60°	1383	1386	1414
65°	1275	1231	1275
70°	1231	1140	1173
75°	1252	1117	1138
80°	1350	1172	1172
85°	1497	1238	1223



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	4.2
10°-20°	270.7	11.9
20°-30°	395.0	17.4
30°-40°	442.2	19.5
40°-50°	402.5	17.7
50°-60°	302.9	13.3
60°-70°	197.7	8.7
70°-80°	118.6	5.2
80°-90°	44.5	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°	761.6	33.6
0°-40°	1203.9	53.0
0°-60°	1909.3	84.1
0°-90°	2270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2270.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1017	1017	1017	1017	1017	
5°	1009	1007	1010	1014	1019	96
15°	951	952	960	968	974	268
25°	843	846	857	872	881	387
35°	687	694	707	724	732	429
45°	507	512	521	532	538	390
55°	329	334	337	342	343	297
65°	200	198	193	197	200	200
75°	120	116	107	108	110	128
85°	48	47	40	38	40	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.2	1017.2	1017.2	1017.2	1017.2
2.5°	1013.6	1013.1	1014.6	1017.2	1019.8
5°	1008.9	1007.3	1009.9	1013.6	1019.3
7.5°	1001.6	1001.6	1001.6	1008.4	1009.4
10°	989.6	990.6	989.1	995.9	998.5
12.5°	972.4	972.9	976.0	982.8	987.5
15°	951.0	952.1	960.4	968.2	974.5
17.5°	927.0	930.7	938.5	951.0	958.8
20°	904.1	908.3	914.5	928.1	932.2
22.5°	874.9	879.6	887.4	899.4	908.3
25°	843.1	845.7	856.6	872.3	880.6
27.5°	805.0	810.8	824.3	840.5	852.0
30°	771.7	774.8	787.3	806.1	814.9
32.5°	729.4	738.8	749.2	765.9	774.3
35°	687.2	693.5	707.0	723.7	732.0
37.5°	646.5	650.2	663.7	677.8	688.2
40°	598.0	604.8	618.4	633.5	640.8
42.5°	549.5	559.5	568.3	583.4	591.3
45°	506.8	512.0	521.4	532.3	537.6
47.5°	462.0	464.6	475.5	482.3	488.0
50°	415.5	418.7	426.0	432.8	439.5
52.5°	372.8	375.4	380.1	386.4	393.1
55°	329.0	333.7	336.8	341.5	342.6
57.5°	293.5	293.0	295.1	298.8	302.4
60°	257.0	258.1	257.6	261.2	262.8
62.5°	226.8	226.3	223.2	228.4	232.5
65°	200.2	198.1	193.4	196.6	200.2
67.5°	175.7	174.7	166.8	169.5	172.6
70°	156.4	152.8	144.9	146.5	149.1
72.5°	137.6	133.5	125.7	126.2	127.7
75°	120.4	116.3	107.4	107.9	109.5
77.5°	104.3	99.1	91.2	90.2	91.2
80°	87.1	82.4	75.6	72.5	75.6
82.5°	69.3	66.7	58.9	55.8	56.8
85°	48.5	46.9	40.1	38.1	39.6
87.5°	22.4	24.0	20.3	18.8	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)