

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: P292233

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292233  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33296)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-28-A-UNV-L93050-W2A1-U-3000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2263.0 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

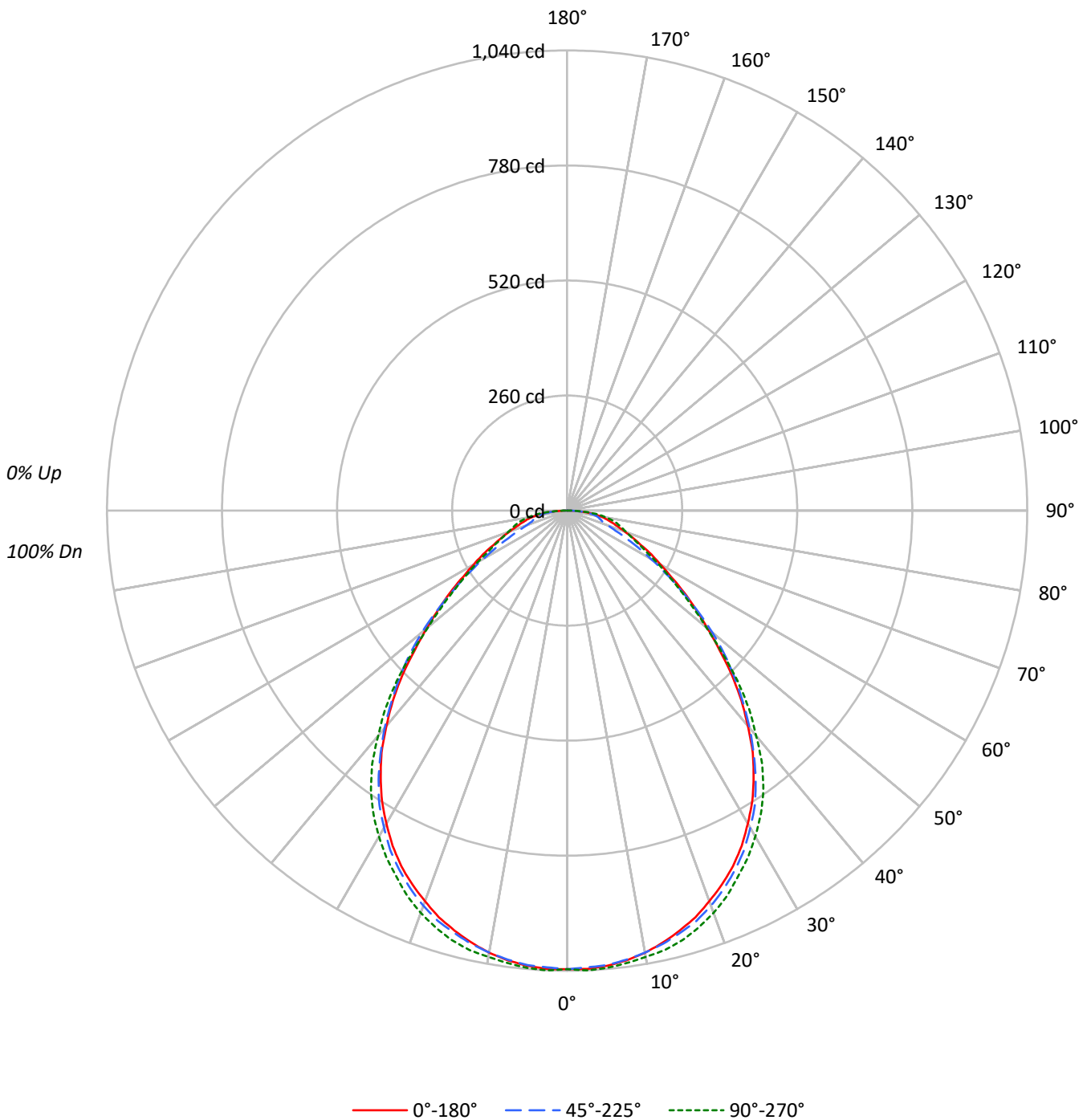
Input Watts (W): 22.506  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	94	87	82	99	92	86	81	88	84	79	85	81	78	82	79	76	74					74			
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64					64			
4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58	56					56			
5	80	68	59	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49					49			
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44					44			
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39					39			
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36					36			
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32					32			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30					30			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2789	2789	2789
5°	2790	2785	2802
10°	2773	2772	2799
15°	2738	2752	2801
20°	2690	2722	2770
25°	2633	2663	2711
30°	2538	2572	2643
35°	2413	2441	2540
40°	2231	2255	2335
45°	2004	2040	2072
50°	1733	1795	1715
55°	1512	1473	1453
60°	1309	1179	1258
65°	1170	925	1130
70°	1086	766	1115
75°	1084	810	1237
80°	1199	1020	1396
85°	1250	1105	1578



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.1	4.3
10°-20°	279.3	12.3
20°-30°	413.1	18.3
30°-40°	466.2	20.6
40°-50°	411.0	18.2
50°-60°	281.9	12.5
60°-70°	166.4	7.4
70°-80°	103.8	4.6
80°-90°	43.3	1.9
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°	790.5	34.9
0°-40°	1256.7	55.5
0°-60°	1949.6	86.1
0°-90°	2263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2263.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1036	1036	1036	1036	1036	
5°	1033	1031	1031	1035	1037	98
15°	983	984	988	1000	1005	277
25°	887	890	897	908	913	407
35°	735	741	743	761	773	458
45°	527	529	536	539	544	405
55°	322	314	314	303	310	289
65°	184	162	145	168	178	185
75°	104	94	78	109	119	112
85°	40	38	36	47	51	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1036.9	1034.3	1033.2	1037.4	1040.1
5°	1032.7	1030.6	1031.1	1034.8	1037.4
7.5°	1025.3	1023.7	1023.7	1029.0	1031.6
10°	1014.8	1014.3	1014.3	1020.6	1024.3
12.5°	1000.0	1000.6	1002.7	1011.1	1017.4
15°	982.7	983.7	987.9	1000.0	1005.3
17.5°	963.7	963.7	972.1	981.6	987.9
20°	939.5	941.1	950.5	961.1	967.4
22.5°	914.7	917.4	925.3	937.4	943.2
25°	886.8	890.0	896.8	908.4	913.1
27.5°	854.2	858.4	865.7	874.2	884.2
30°	816.8	823.1	827.8	839.4	850.5
32.5°	778.9	784.7	789.9	802.0	814.7
35°	734.6	740.9	743.0	761.0	773.1
37.5°	689.3	692.0	693.0	710.9	724.1
40°	635.1	640.4	641.9	656.2	664.6
42.5°	583.0	585.1	588.2	598.8	608.8
45°	526.6	529.2	536.1	539.3	544.5
47.5°	467.6	475.5	483.4	473.4	474.0
50°	413.9	420.2	428.7	409.7	409.7
52.5°	366.0	369.2	369.7	353.9	357.0
55°	322.3	314.4	313.9	303.3	309.6
57.5°	278.6	268.0	264.4	261.2	268.6
60°	243.3	224.3	219.1	223.8	233.8
62.5°	214.3	190.1	180.1	192.2	201.2
65°	183.8	161.7	145.3	168.0	177.5
67.5°	160.1	139.0	118.0	150.1	156.9
70°	138.0	121.6	97.4	136.4	141.7
72.5°	120.1	107.4	84.3	123.2	129.5
75°	104.3	93.7	77.9	109.0	119.0
77.5°	91.6	80.0	72.7	94.3	106.4
80°	77.4	65.8	65.8	79.0	90.1
82.5°	61.1	51.6	53.2	64.2	72.1
85°	40.5	37.9	35.8	46.9	51.1
87.5°	20.5	21.1	19.0	24.2	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)