

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: P292226

Luminaire Tested: **22GR-LD5-20-A-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292226  
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-LD5-20-A-UNV-L93050-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1936.0 lumens  
Efficiency: N/A  
Efficacy: 120.3 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

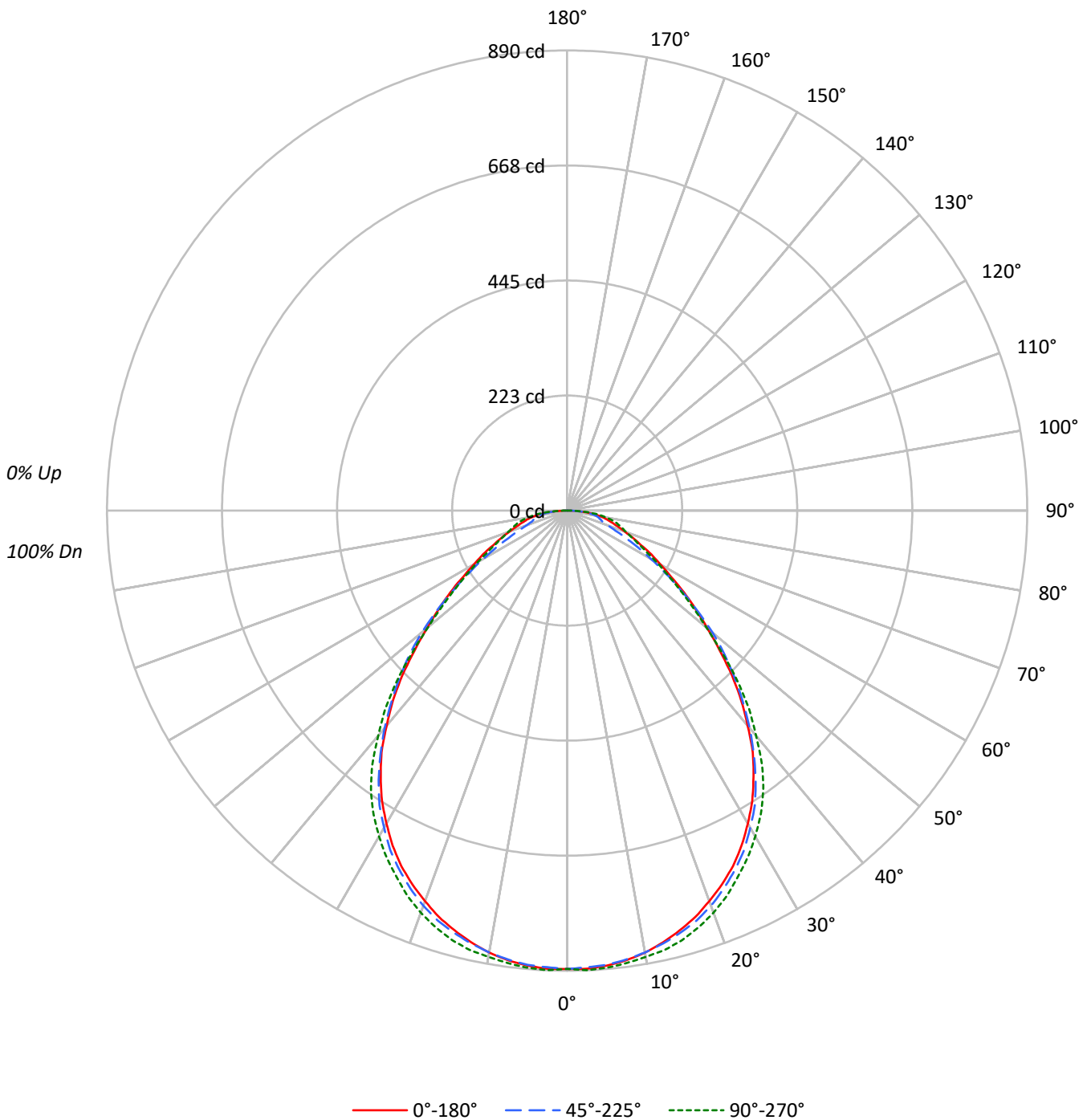
Input Watts (W): 16.089  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	99	92	86	81	88	84	79	85	81	78	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58	56
5	80	68	59	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30

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

	0°	45°	90°
0°	2386	2386	2386
5°	2387	2383	2397
10°	2372	2371	2394
15°	2342	2355	2396
20°	2302	2329	2370
25°	2253	2278	2320
30°	2171	2201	2261
35°	2065	2088	2173
40°	1909	1929	1997
45°	1714	1745	1773
50°	1482	1535	1467
55°	1293	1260	1243
60°	1120	1009	1076
65°	1001	791	967
70°	928	655	954
75°	927	693	1058
80°	1026	872	1193
85°	1071	945	1349



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.9	4.3
10°-20°	239.0	12.3
20°-30°	353.4	18.3
30°-40°	398.8	20.6
40°-50°	351.6	18.2
50°-60°	241.2	12.5
60°-70°	142.3	7.4
70°-80°	88.8	4.6
80°-90°	37.0	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°	676.3	34.9
0°-40°	1075.1	55.5
0°-60°	1667.9	86.1
0°-90°	1936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1936.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	884	882	882	885	888	84
15°	841	842	845	856	860	237
25°	759	761	767	777	781	348
35°	628	634	636	651	661	392
45°	450	453	459	461	466	346
55°	276	269	268	260	265	247
65°	157	138	124	144	152	158
75°	89	80	67	93	102	96
85°	35	32	31	40	44	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	886.6	886.6	886.6	886.6	886.6
2.5°	887.1	884.8	883.9	887.5	889.8
5°	883.5	881.7	882.1	885.3	887.5
7.5°	877.2	875.8	875.8	880.3	882.6
10°	868.1	867.7	867.7	873.1	876.3
12.5°	855.5	856.0	857.8	865.0	870.4
15°	840.7	841.6	845.2	855.5	860.0
17.5°	824.4	824.4	831.7	839.8	845.2
20°	803.7	805.1	813.2	822.2	827.6
22.5°	782.5	784.8	791.6	801.9	806.9
25°	758.7	761.4	767.2	777.1	781.2
27.5°	730.7	734.3	740.7	747.9	756.4
30°	698.8	704.2	708.2	718.1	727.6
32.5°	666.3	671.3	675.8	686.1	697.0
35°	628.5	633.9	635.7	651.0	661.4
37.5°	589.7	592.0	592.9	608.2	619.5
40°	543.3	547.8	549.2	561.3	568.6
42.5°	498.7	500.5	503.2	512.2	520.8
45°	450.5	452.8	458.6	461.3	465.8
47.5°	400.1	406.8	413.6	405.0	405.5
50°	354.1	359.5	366.7	350.5	350.5
52.5°	313.1	315.8	316.3	302.7	305.5
55°	275.7	269.0	268.5	259.5	264.9
57.5°	238.3	229.3	226.2	223.5	229.8
60°	208.1	191.9	187.4	191.5	200.0
62.5°	183.4	162.6	154.1	164.4	172.1
65°	157.2	138.3	124.3	143.7	151.8
67.5°	137.0	118.9	100.9	128.4	134.3
70°	118.0	104.1	83.3	116.7	121.2
72.5°	102.7	91.9	72.1	105.4	110.8
75°	89.2	80.2	66.7	93.3	101.8
77.5°	78.4	68.5	62.2	80.6	91.0
80°	66.2	56.3	56.3	67.6	77.0
82.5°	52.3	44.2	45.5	55.0	61.7
85°	34.7	32.4	30.6	40.1	43.7
87.5°	17.6	18.0	16.2	20.7	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)