

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: P292182

Luminaire Tested: **22GR-LD5-28-A-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292182  
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-L82765-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2955.0 lumens  
Efficiency: N/A  
Efficacy: 131.8 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

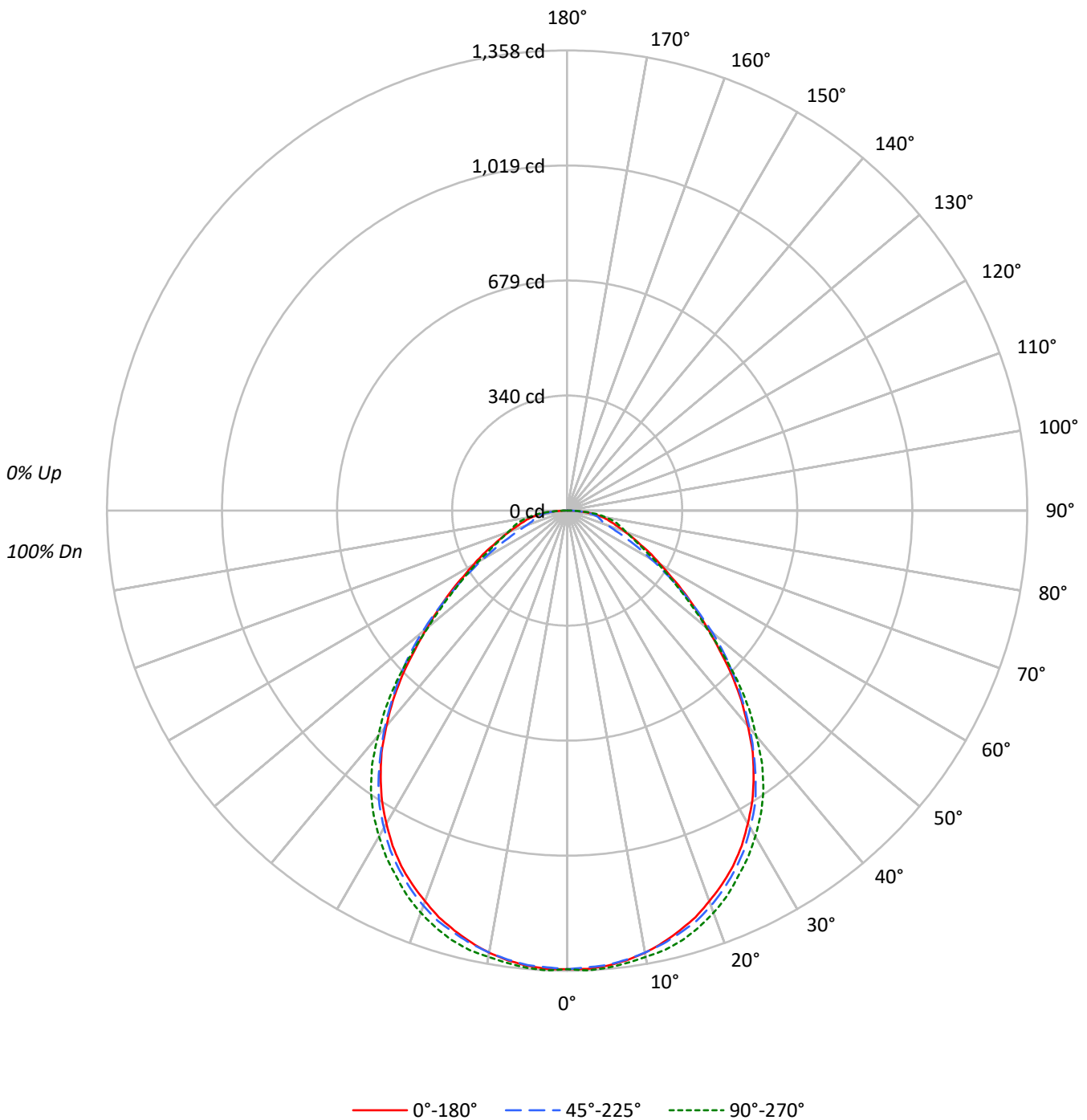
Input Watts (W): 22.413  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3642	3642	3642
5°	3643	3637	3659
10°	3621	3619	3655
15°	3575	3594	3657
20°	3513	3554	3617
25°	3438	3477	3540
30°	3314	3359	3451
35°	3151	3188	3316
40°	2913	2944	3048
45°	2617	2664	2706
50°	2263	2343	2240
55°	1974	1923	1897
60°	1710	1540	1643
65°	1528	1209	1475
70°	1418	1001	1456
75°	1416	1058	1616
80°	1567	1333	1822
85°	1633	1445	2059



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.1	4.3
10°-20°	364.7	12.3
20°-30°	539.4	18.3
30°-40°	608.7	20.6
40°-50°	536.6	18.2
50°-60°	368.1	12.5
60°-70°	217.2	7.4
70°-80°	135.6	4.6
80°-90°	56.5	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°	1032.2	34.9
0°-40°	1641.0	55.5
0°-60°	2545.7	86.1
0°-90°	2955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2955.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1353	1353	1353	1353	1353	
5°	1348	1346	1346	1351	1355	128
15°	1283	1284	1290	1306	1313	362
25°	1158	1162	1171	1186	1192	532
35°	959	968	970	994	1010	598
45°	688	691	700	704	711	528
55°	421	410	410	396	404	377
65°	240	211	190	219	232	242
75°	136	122	102	142	155	146
85°	53	50	47	61	67	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1353.3	1353.3	1353.3	1353.3	1353.3
2.5°	1354.0	1350.5	1349.2	1354.7	1358.1
5°	1348.5	1345.7	1346.4	1351.2	1354.7
7.5°	1338.8	1336.8	1336.8	1343.7	1347.1
10°	1325.1	1324.4	1324.4	1332.7	1337.5
12.5°	1305.8	1306.5	1309.3	1320.3	1328.5
15°	1283.1	1284.5	1290.0	1305.8	1312.7
17.5°	1258.4	1258.4	1269.4	1281.8	1290.0
20°	1226.8	1228.8	1241.2	1255.0	1263.2
22.5°	1194.4	1197.9	1208.2	1224.0	1231.6
25°	1158.0	1162.1	1171.1	1186.2	1192.4
27.5°	1115.4	1120.9	1130.5	1141.5	1154.6
30°	1066.5	1074.8	1081.0	1096.1	1110.5
32.5°	1017.0	1024.6	1031.5	1047.3	1063.8
35°	959.3	967.5	970.3	993.6	1009.5
37.5°	900.1	903.6	904.9	928.3	945.5
40°	829.3	836.2	838.2	856.8	867.8
42.5°	761.2	764.0	768.1	781.9	794.9
45°	687.6	691.1	700.0	704.1	711.0
47.5°	610.6	620.9	631.3	618.2	618.9
50°	540.5	548.7	559.7	535.0	535.0
52.5°	477.9	482.0	482.7	462.1	466.2
55°	420.8	410.5	409.8	396.1	404.3
57.5°	363.8	350.0	345.2	341.1	350.7
60°	317.7	292.9	286.1	292.2	305.3
62.5°	279.9	248.2	235.2	251.0	262.7
65°	240.0	211.1	189.8	219.4	231.7
67.5°	209.0	181.5	154.0	196.0	204.9
70°	180.2	158.8	127.2	178.1	185.0
72.5°	156.8	140.3	110.0	160.9	169.2
75°	136.2	122.4	101.8	142.3	155.4
77.5°	119.7	104.5	94.9	123.1	138.9
80°	101.1	86.0	86.0	103.1	117.6
82.5°	79.8	67.4	69.5	83.9	94.2
85°	52.9	49.5	46.8	61.2	66.7
87.5°	26.8	27.5	24.8	31.6	32.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)