

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: P293581

Luminaire Tested: **24GR-LD5-85-A-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293581  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-85-A-UNV-L93050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7698.0 lumens  
Efficiency: N/A  
Efficacy: 120.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

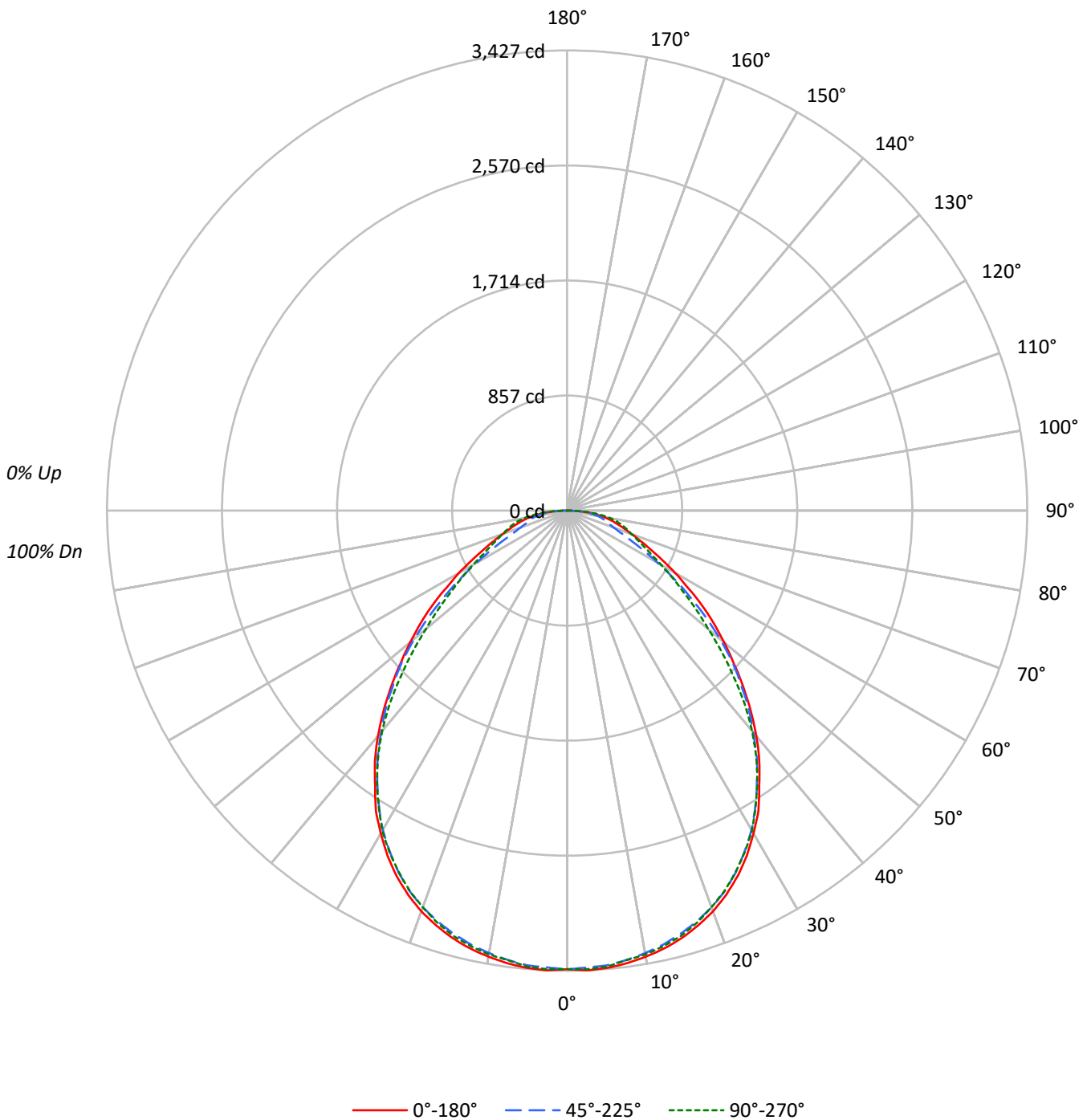
Input Watts (W): 64.025478  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293581

CATALOG NUMBER: 24GR-LD5-85-A-UNV-L93050-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P293581

CATALOG NUMBER: 24GR-LD5-85-A-UNV-L93050-W2A1-U-4000K

**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	93	90	91	89	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63					63			
4	86	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55					55			
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49					49			
6	73	61	53	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43					43			
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39					39			
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35					35			
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	38	33	32					32			
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29					29			

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

	0°	45°	90°
0°	4596	4596	4596
5°	4618	4592	4603
10°	4610	4572	4585
15°	4592	4546	4566
20°	4548	4502	4501
25°	4460	4412	4408
30°	4312	4268	4277
35°	4096	4049	4055
40°	3852	3785	3762
45°	3530	3483	3345
50°	3191	3104	2870
55°	2865	2608	2475
60°	2509	2099	2176
65°	2188	1651	2003
70°	2002	1441	2002
75°	2003	1533	2207
80°	2175	1806	2516
85°	2387	2038	2699



TEST NUMBER: P293581

CATALOG NUMBER: 24GR-LD5-85-A-UNV-L93050-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	323.4	4.2
10°-20°	923.0	12.0
20°-30°	1368.7	17.8
30°-40°	1544.0	20.1
40°-50°	1398.4	18.2
50°-60°	1008.9	13.1
60°-70°	602.4	7.8
70°-80°	372.3	4.8
80°-90°	156.8	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°	2615.1	34.0
0°-40°	4159.1	54.0
0°-60°	6566.4	85.3
0°-90°	7698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7698.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3416	3416	3416	3416	3416	
5°	3419	3414	3400	3396	3408	325
15°	3297	3276	3263	3264	3278	929
25°	3004	2987	2972	2961	2970	1380
35°	2494	2490	2465	2466	2469	1560
45°	1855	1843	1830	1785	1758	1430
55°	1221	1183	1112	1057	1055	1090
65°	687	605	518	589	629	691
75°	385	334	295	368	425	411
85°	155	136	132	172	175	162
90°	0	0	0	0	0	



TEST NUMBER: P293581

CATALOG NUMBER: 24GR-LD5-85-A-UNV-L93050-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3415.5	3415.5	3415.5	3415.5	3415.5
2.5°	3427.4	3417.9	3406.0	3413.1	3419.1
5°	3419.1	3414.3	3400.1	3396.5	3408.4
7.5°	3401.2	3389.3	3376.3	3382.2	3377.5
10°	3373.9	3363.2	3346.5	3347.7	3356.1
12.5°	3340.6	3327.5	3309.7	3314.4	3321.6
15°	3296.6	3276.4	3263.3	3264.5	3277.6
17.5°	3240.7	3225.2	3208.6	3212.2	3218.1
20°	3176.5	3168.2	3144.4	3137.2	3143.2
22.5°	3095.6	3080.1	3067.1	3063.5	3064.7
25°	3004.0	2987.4	2971.9	2961.2	2969.5
27.5°	2897.0	2882.7	2862.5	2858.9	2866.1
30°	2775.7	2765.0	2747.2	2742.4	2753.1
32.5°	2652.0	2634.2	2609.2	2609.2	2611.6
35°	2493.8	2490.3	2465.3	2466.5	2468.9
37.5°	2351.1	2334.5	2320.2	2305.9	2313.1
40°	2193.0	2173.9	2154.9	2145.4	2141.8
42.5°	2022.9	2008.6	2000.3	1965.8	1957.5
45°	1855.2	1843.3	1830.2	1785.1	1757.7
47.5°	1684.0	1681.6	1670.9	1591.2	1563.9
50°	1524.6	1521.0	1483.0	1398.6	1371.2
52.5°	1373.6	1349.8	1299.8	1216.6	1211.8
55°	1221.4	1183.3	1111.9	1057.2	1054.9
57.5°	1060.8	1015.6	943.1	913.3	928.8
60°	932.4	863.4	780.1	783.7	808.7
62.5°	799.2	721.9	639.8	675.5	705.2
65°	687.4	605.3	518.5	588.7	629.1
67.5°	589.9	513.8	430.5	524.5	563.7
70°	509.0	447.2	366.3	465.0	509.0
72.5°	444.8	387.7	324.7	417.4	468.6
75°	385.3	334.2	294.9	367.5	424.6
77.5°	334.2	284.2	266.4	324.7	380.6
80°	280.7	235.5	233.1	283.0	324.7
82.5°	218.8	187.9	187.9	236.7	261.6
85°	154.6	135.6	132.0	172.4	174.8
87.5°	79.7	76.1	69.0	90.4	90.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)