

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: P294212

Luminaire Tested: **24GR-LD5-85-FGW080-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294212  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-25)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-85-FGW080-UNV-L83050-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7661.0 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

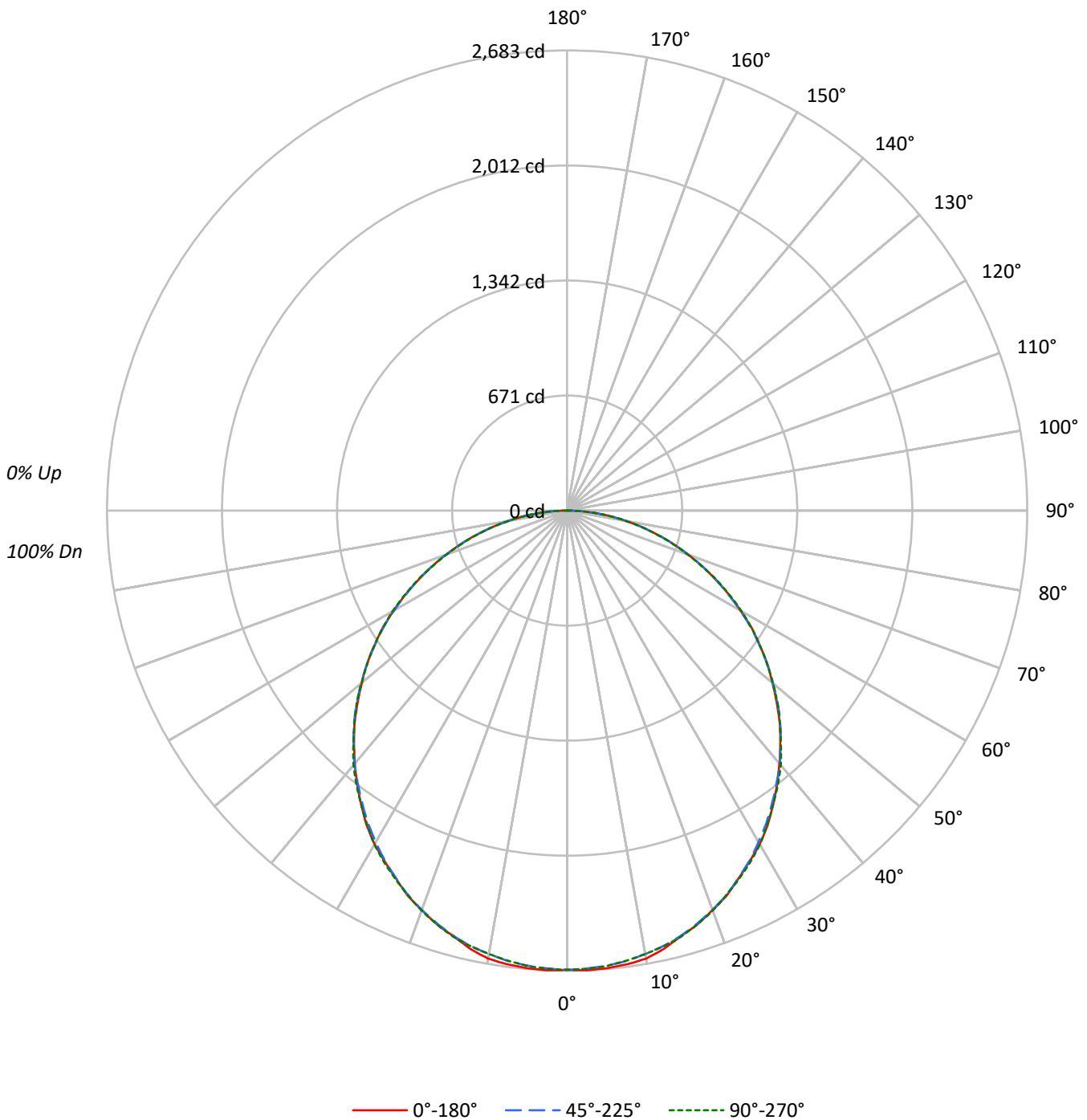
Input Watts (W): 65.472  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	3603	3603	3603
5°	3616	3597	3599
10°	3624	3587	3587
15°	3576	3574	3581
20°	3549	3547	3555
25°	3511	3508	3519
30°	3489	3467	3492
35°	3439	3422	3439
40°	3383	3386	3405
45°	3335	3345	3338
50°	3271	3283	3275
55°	3221	3213	3221
60°	3146	3136	3165
65°	3049	3060	3072
70°	2950	2964	2943
75°	2846	2846	2846
80°	2688	2688	2716
85°	2482	2510	2427



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.2	3.3
10°-20°	723.8	9.4
20°-30°	1090.7	14.2
30°-40°	1306.4	17.1
40°-50°	1352.3	17.7
50°-60°	1226.1	16.0
60°-70°	950.6	12.4
70°-80°	578.1	7.5
80°-90°	179.9	2.3
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°	2067.7	27.0
0°-40°	3374.1	44.0
0°-60°	5952.5	77.7
0°-90°	7661.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7661.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2678	2678	2678	2678	2678	
5°	2678	2661	2663	2660	2665	255
15°	2567	2569	2566	2557	2571	726
25°	2365	2365	2363	2370	2370	1092
35°	2094	2080	2083	2092	2094	1310
45°	1753	1756	1758	1751	1754	1350
55°	1373	1366	1370	1375	1373	1227
65°	958	963	961	958	965	950
75°	547	546	547	546	547	578
85°	161	159	163	161	157	180
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2677.6	2677.6	2677.6	2677.6	2677.6
2.5°	2683.0	2672.2	2672.2	2668.6	2674.0
5°	2677.6	2661.3	2663.2	2659.5	2665.0
7.5°	2668.6	2646.9	2648.7	2645.1	2646.9
10°	2652.3	2627.0	2625.2	2623.4	2625.2
12.5°	2616.2	2601.7	2599.9	2596.3	2601.7
15°	2567.4	2569.2	2565.6	2556.6	2571.0
17.5°	2529.5	2527.6	2524.0	2515.0	2529.5
20°	2478.9	2480.7	2477.1	2473.4	2482.5
22.5°	2430.1	2424.7	2426.5	2424.7	2426.5
25°	2365.0	2365.0	2363.2	2370.5	2370.5
27.5°	2305.4	2298.2	2301.8	2309.0	2312.6
30°	2245.8	2227.7	2231.3	2238.6	2247.6
32.5°	2175.3	2157.3	2160.9	2168.1	2171.7
35°	2094.0	2079.6	2083.2	2092.2	2094.0
37.5°	2010.9	2001.9	2005.5	2012.7	2018.1
40°	1926.0	1922.4	1927.8	1926.0	1938.6
42.5°	1839.3	1837.5	1842.9	1842.9	1844.7
45°	1752.6	1756.2	1758.0	1750.7	1754.4
47.5°	1656.8	1658.6	1665.8	1662.2	1664.0
50°	1562.8	1561.0	1568.3	1570.1	1564.6
52.5°	1472.5	1463.5	1470.7	1474.3	1470.7
55°	1373.1	1365.9	1369.5	1374.9	1373.1
57.5°	1275.6	1268.3	1270.1	1279.2	1275.6
60°	1169.0	1167.2	1165.4	1172.6	1176.2
62.5°	1064.2	1062.4	1058.8	1066.0	1069.6
65°	957.6	963.0	961.2	957.6	964.8
67.5°	856.4	861.8	856.4	852.8	852.8
70°	749.8	755.2	753.4	749.8	748.0
72.5°	650.4	650.4	646.8	645.0	646.8
75°	547.4	545.6	547.4	545.6	547.4
77.5°	446.3	448.1	448.1	448.1	446.3
80°	346.9	346.9	346.9	348.7	350.5
82.5°	254.8	249.3	254.8	251.1	252.9
85°	160.8	159.0	162.6	160.8	157.2
87.5°	72.3	74.1	74.1	75.9	75.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)