

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: P293037

Luminaire Tested: **24GR-LD5-30-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293037  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-30-F1-UNV-L93050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2798.0 lumens  
Efficiency: N/A  
Efficacy: 136.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

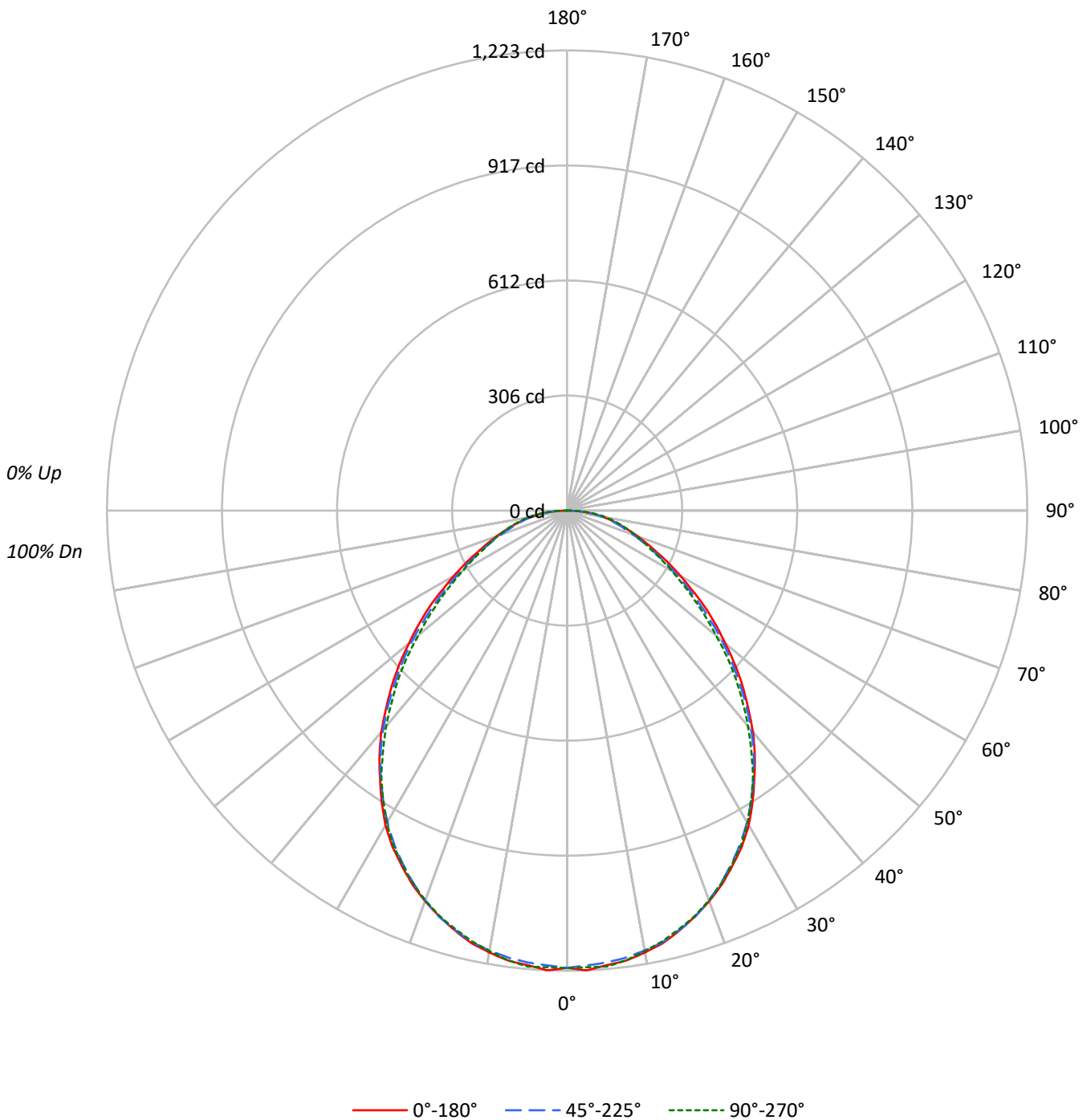
Input Watts (W): 20.51487  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

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

	0°	45°	90°
0°	1635	1635	1635
5°	1638	1628	1642
10°	1629	1622	1624
15°	1609	1607	1603
20°	1582	1578	1578
25°	1545	1536	1540
30°	1500	1485	1489
35°	1425	1418	1414
40°	1349	1337	1314
45°	1254	1232	1208
50°	1149	1123	1081
55°	1049	1002	968
60°	935	890	866
65°	841	798	786
70°	781	733	763
75°	747	714	774
80°	747	747	828
85°	775	784	874



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.8	4.1
10°-20°	324.8	11.6
20°-30°	476.7	17.0
30°-40°	539.0	19.3
40°-50°	498.1	17.8
50°-60°	383.8	13.7
60°-70°	254.1	9.1
70°-80°	151.3	5.4
80°-90°	55.4	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°	916.3	32.7
0°-40°	1455.3	52.0
0°-60°	2337.2	83.5
0°-90°	2798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2798.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1212	1212	1206	1206	1216	115
15°	1155	1152	1154	1153	1151	325
25°	1040	1038	1035	1034	1037	479
35°	867	866	863	859	861	543
45°	659	654	648	636	635	508
55°	447	438	427	416	413	399
65°	264	260	250	248	247	265
75°	144	140	137	144	149	153
85°	50	47	51	56	57	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1215.4	1215.4	1215.4	1215.4	1215.4
2.5°	1222.9	1216.5	1209.6	1209.6	1214.8
5°	1212.5	1212.5	1205.6	1206.2	1216.0
7.5°	1206.2	1202.7	1198.1	1198.1	1205.6
10°	1192.3	1189.4	1187.1	1186.0	1188.3
12.5°	1177.3	1172.7	1174.4	1172.7	1172.1
15°	1154.8	1152.5	1153.6	1153.1	1150.7
17.5°	1130.6	1129.4	1131.7	1127.7	1129.4
20°	1104.6	1101.1	1102.3	1100.0	1102.3
22.5°	1075.1	1072.8	1070.0	1067.1	1071.7
25°	1040.5	1037.6	1034.8	1033.6	1037.1
27.5°	1005.9	1001.3	997.2	996.1	1001.3
30°	965.5	960.3	955.7	954.5	958.6
32.5°	917.6	916.4	910.7	908.4	910.1
35°	867.4	866.2	863.4	859.3	861.0
37.5°	819.5	818.9	814.9	807.9	803.3
40°	768.1	764.1	761.2	751.4	747.9
42.5°	711.6	710.4	705.2	694.3	690.2
45°	659.1	654.4	647.5	636.0	634.8
47.5°	604.8	598.5	592.1	577.7	577.1
50°	548.8	544.2	536.7	522.3	516.5
52.5°	496.9	490.5	480.2	466.3	463.4
55°	447.3	438.0	427.1	415.5	412.6
57.5°	394.2	390.1	376.9	367.6	364.2
60°	347.4	344.0	330.7	322.0	322.0
62.5°	305.3	300.1	288.6	282.8	282.8
65°	264.3	260.3	250.5	248.2	247.0
67.5°	229.1	223.9	217.0	216.4	219.3
70°	198.5	192.2	186.4	192.2	193.9
72.5°	169.7	165.6	160.4	167.9	171.4
75°	143.7	140.2	137.4	143.7	148.9
77.5°	120.0	116.6	116.6	123.5	128.1
80°	96.4	94.1	96.4	102.1	106.8
82.5°	73.9	72.1	75.0	80.8	83.7
85°	50.2	47.3	50.8	56.0	56.6
87.5°	23.7	23.1	25.4	28.9	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)