

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: P293042

Luminaire Tested: **24GR-LD5-34-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293042
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-LD5-34-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: 3205.0 lumens
Efficiency: N/A
Efficacy: 136.0 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

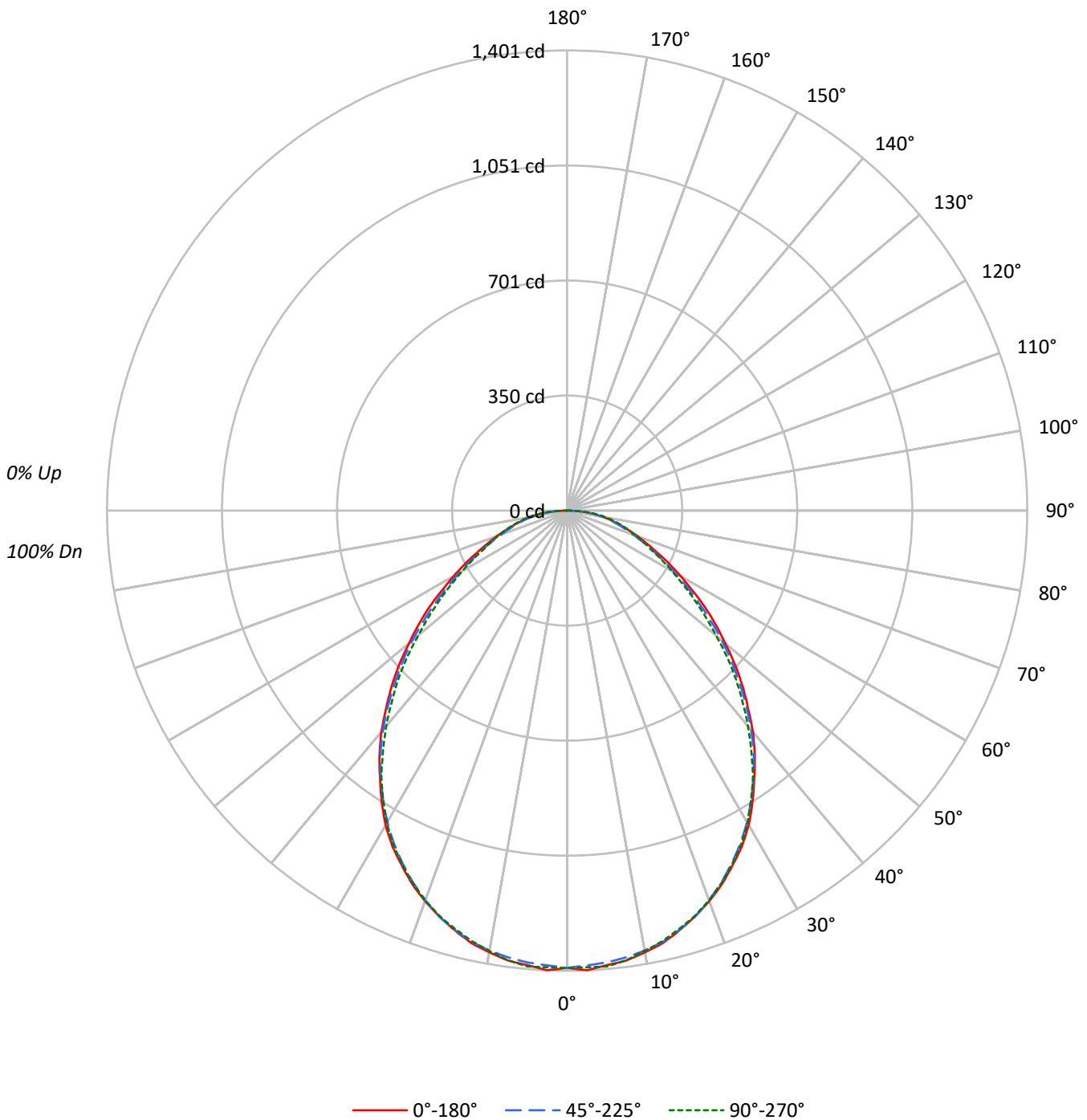
Input Watts (W): 23.568246
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1873	1873	1873
5°	1876	1865	1881
10°	1866	1858	1860
15°	1843	1841	1836
20°	1812	1808	1808
25°	1769	1760	1764
30°	1718	1701	1706
35°	1632	1624	1620
40°	1545	1531	1505
45°	1436	1411	1384
50°	1316	1287	1238
55°	1202	1148	1109
60°	1071	1019	993
65°	964	913	901
70°	895	840	874
75°	856	818	887
80°	855	855	948
85°	888	898	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	4.1
10°-20°	372.1	11.6
20°-30°	546.1	17.0
30°-40°	617.4	19.3
40°-50°	570.6	17.8
50°-60°	439.6	13.7
60°-70°	291.1	9.1
70°-80°	173.3	5.4
80°-90°	63.5	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°	1049.6	32.7
0°-40°	1667.0	52.0
0°-60°	2677.1	83.5
0°-90°	3205.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3205.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1392	1392	1392	1392	1392	
5°	1389	1389	1381	1382	1393	132
15°	1323	1320	1321	1321	1318	373
25°	1192	1189	1185	1184	1188	549
35°	994	992	989	984	986	622
45°	755	750	742	728	727	582
55°	512	502	489	476	473	457
65°	303	298	287	284	283	304
75°	165	161	157	165	171	176
85°	58	54	58	64	65	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1392.2	1392.2	1392.2	1392.2	1392.2
2.5°	1400.8	1393.5	1385.6	1385.6	1391.5
5°	1388.9	1388.9	1380.9	1381.6	1392.8
7.5°	1381.6	1377.6	1372.3	1372.3	1380.9
10°	1365.7	1362.4	1359.8	1358.5	1361.1
12.5°	1348.5	1343.3	1345.2	1343.3	1342.6
15°	1322.8	1320.1	1321.4	1320.8	1318.1
17.5°	1295.0	1293.7	1296.3	1291.7	1293.7
20°	1265.3	1261.3	1262.6	1260.0	1262.6
22.5°	1231.5	1228.9	1225.6	1222.3	1227.6
25°	1191.9	1188.6	1185.3	1183.9	1187.9
27.5°	1152.2	1146.9	1142.3	1141.0	1146.9
30°	1105.9	1100.0	1094.7	1093.4	1098.0
32.5°	1051.1	1049.8	1043.1	1040.5	1042.5
35°	993.6	992.2	988.9	984.3	986.3
37.5°	938.7	938.0	933.4	925.5	920.2
40°	879.9	875.2	871.9	860.7	856.7
42.5°	815.1	813.8	807.8	795.2	790.6
45°	754.9	749.6	741.7	728.5	727.2
47.5°	692.8	685.5	678.2	661.7	661.1
50°	628.7	623.4	614.8	598.3	591.6
52.5°	569.2	561.9	550.0	534.1	530.8
55°	512.3	501.7	489.2	476.0	472.7
57.5°	451.5	446.9	431.7	421.1	417.1
60°	398.0	394.0	378.8	368.9	368.9
62.5°	349.7	343.7	330.5	323.9	323.9
65°	302.8	298.1	286.9	284.3	282.9
67.5°	262.4	256.5	248.6	247.9	251.2
70°	227.4	220.1	213.5	220.1	222.1
72.5°	194.3	189.7	183.8	192.4	196.3
75°	164.6	160.6	157.3	164.6	170.6
77.5°	137.5	133.5	133.5	141.5	146.8
80°	110.4	107.8	110.4	117.0	122.3
82.5°	84.6	82.6	85.9	92.5	95.9
85°	57.5	54.2	58.2	64.1	64.8
87.5°	27.1	26.4	29.1	33.1	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)