

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: P293043

Luminaire Tested: **24GR-LD5-34-F1-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293043
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-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3261.0 lumens
Efficiency: N/A
Efficacy: 136.2 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

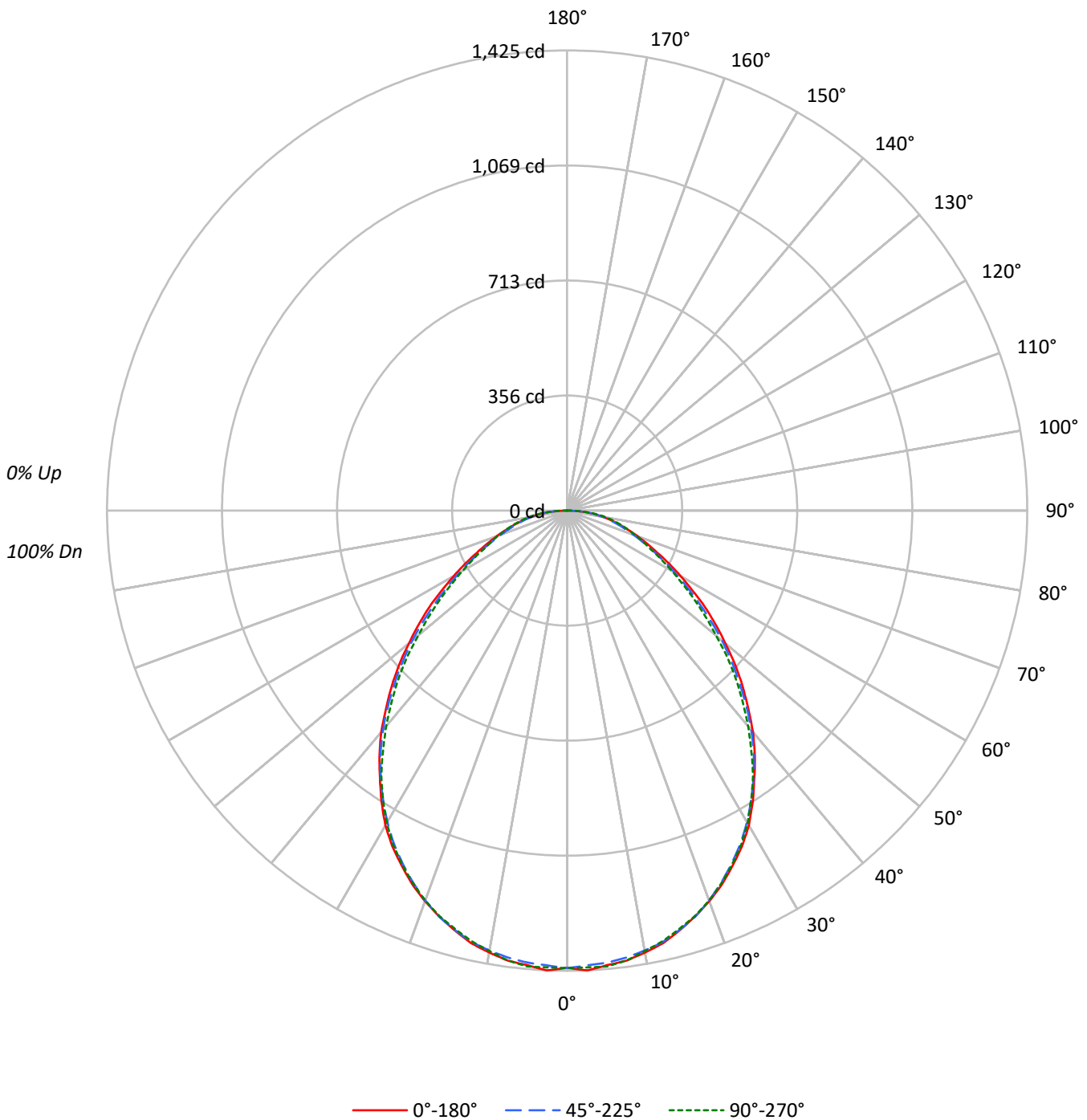
Input Watts (W): 23.935782
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1906	1906	1906
5°	1909	1898	1914
10°	1899	1890	1892
15°	1875	1873	1868
20°	1843	1839	1839
25°	1800	1790	1794
30°	1748	1730	1736
35°	1660	1653	1648
40°	1572	1558	1531
45°	1462	1436	1408
50°	1339	1309	1260
55°	1223	1167	1128
60°	1090	1037	1010
65°	981	929	917
70°	910	855	889
75°	871	832	902
80°	870	870	964
85°	903	914	1017



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.8	4.1
10°-20°	378.6	11.6
20°-30°	555.6	17.0
30°-40°	628.1	19.3
40°-50°	580.5	17.8
50°-60°	447.3	13.7
60°-70°	296.2	9.1
70°-80°	176.3	5.4
80°-90°	64.6	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°	1067.9	32.7
0°-40°	1696.1	52.0
0°-60°	2723.9	83.5
0°-90°	3261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1413	1413	1405	1406	1417	134
15°	1346	1343	1344	1344	1341	379
25°	1213	1209	1206	1205	1209	558
35°	1011	1010	1006	1002	1004	633
45°	768	763	755	741	740	592
55°	521	510	498	484	481	465
65°	308	303	292	289	288	309
75°	168	163	160	168	174	179
85°	58	55	59	65	66	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1416.5	1416.5	1416.5	1416.5	1416.5
2.5°	1425.2	1417.8	1409.8	1409.8	1415.8
5°	1413.1	1413.1	1405.1	1405.7	1417.2
7.5°	1405.7	1401.7	1396.3	1396.3	1405.1
10°	1389.6	1386.2	1383.5	1382.2	1384.9
12.5°	1372.1	1366.7	1368.7	1366.7	1366.1
15°	1345.9	1343.2	1344.5	1343.9	1341.2
17.5°	1317.6	1316.3	1319.0	1314.3	1316.3
20°	1287.4	1283.3	1284.7	1282.0	1284.7
22.5°	1253.1	1250.4	1247.0	1243.6	1249.0
25°	1212.7	1209.3	1206.0	1204.6	1208.7
27.5°	1172.3	1167.0	1162.3	1160.9	1167.0
30°	1125.3	1119.2	1113.8	1112.5	1117.2
32.5°	1069.4	1068.1	1061.4	1058.7	1060.7
35°	1010.9	1009.6	1006.2	1001.5	1003.5
37.5°	955.1	954.4	949.7	941.6	936.3
40°	895.2	890.5	887.2	875.7	871.7
42.5°	829.3	828.0	821.9	809.1	804.4
45°	768.1	762.7	754.7	741.2	739.9
47.5°	704.9	697.5	690.1	673.3	672.6
50°	639.6	634.3	625.5	608.7	602.0
52.5°	579.1	571.7	559.6	543.5	540.1
55°	521.3	510.5	497.7	484.3	480.9
57.5°	459.4	454.7	439.2	428.4	424.4
60°	404.9	400.9	385.4	375.3	375.3
62.5°	355.8	349.8	336.3	329.6	329.6
65°	308.1	303.3	291.9	289.2	287.9
67.5°	267.0	261.0	252.9	252.2	255.6
70°	231.4	224.0	217.3	224.0	226.0
72.5°	197.7	193.0	187.0	195.7	199.8
75°	167.5	163.4	160.1	167.5	173.5
77.5°	139.9	135.9	135.9	143.9	149.3
80°	112.3	109.6	112.3	119.1	124.4
82.5°	86.1	84.1	87.4	94.2	97.5
85°	58.5	55.2	59.2	65.2	65.9
87.5°	27.6	26.9	29.6	33.6	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)