

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: P293093

Luminaire Tested: **24GR-LD5-34-F1-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293093
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-L92765-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: 3163.0 lumens
Efficiency: N/A
Efficacy: 135.0 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

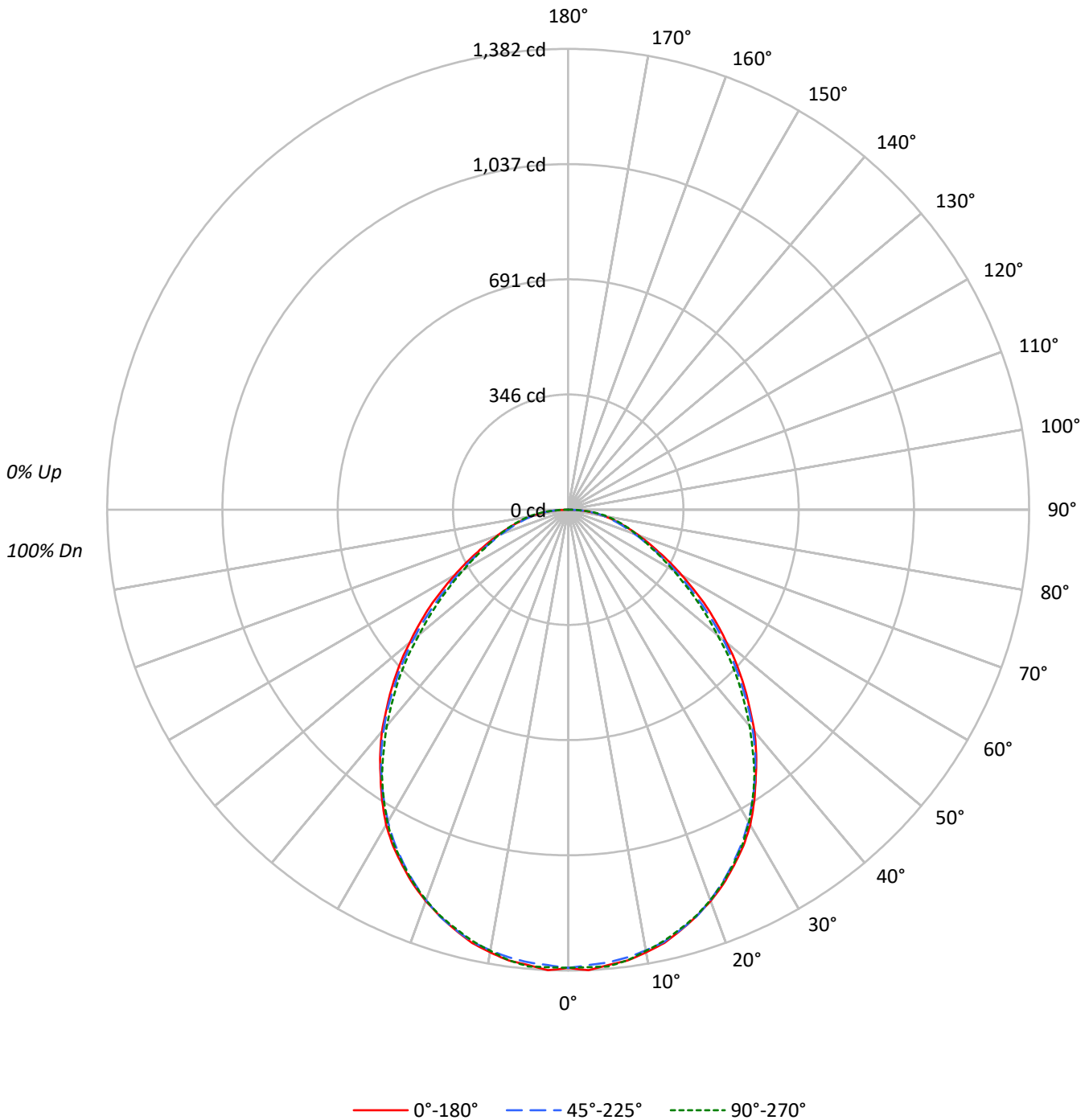
Input Watts (W): 23.436
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1849	1849	1849
5°	1851	1841	1857
10°	1841	1834	1835
15°	1818	1817	1812
20°	1788	1784	1784
25°	1746	1737	1740
30°	1696	1679	1684
35°	1611	1603	1599
40°	1525	1511	1485
45°	1418	1393	1365
50°	1299	1270	1222
55°	1186	1133	1094
60°	1057	1006	980
65°	951	901	889
70°	883	829	862
75°	844	807	875
80°	844	844	935
85°	877	886	986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.8	4.1
10°-20°	367.2	11.6
20°-30°	538.9	17.0
30°-40°	609.3	19.3
40°-50°	563.1	17.8
50°-60°	433.8	13.7
60°-70°	287.3	9.1
70°-80°	171.0	5.4
80°-90°	62.6	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°	1035.9	32.7
0°-40°	1645.1	52.0
0°-60°	2642.1	83.5
0°-90°	3163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3163.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1371	1371	1363	1364	1375	130
15°	1305	1303	1304	1304	1301	368
25°	1176	1173	1170	1168	1172	542
35°	980	979	976	971	973	614
45°	745	740	732	719	718	574
55°	506	495	483	470	466	451
65°	299	294	283	280	279	300
75°	162	158	155	162	168	173
85°	57	54	57	63	64	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1373.9	1373.9	1373.9	1373.9	1373.9
2.5°	1382.4	1375.2	1367.4	1367.4	1373.3
5°	1370.7	1370.7	1362.8	1363.5	1374.6
7.5°	1363.5	1359.6	1354.4	1354.4	1362.8
10°	1347.8	1344.6	1342.0	1340.7	1343.3
12.5°	1330.9	1325.7	1327.6	1325.7	1325.0
15°	1305.4	1302.8	1304.1	1303.5	1300.9
17.5°	1278.0	1276.7	1279.3	1274.8	1276.7
20°	1248.7	1244.8	1246.1	1243.5	1246.1
22.5°	1215.4	1212.8	1209.5	1206.3	1211.5
25°	1176.3	1173.0	1169.7	1168.4	1172.3
27.5°	1137.1	1131.9	1127.3	1126.0	1131.9
30°	1091.4	1085.6	1080.4	1079.1	1083.6
32.5°	1037.3	1036.0	1029.5	1026.9	1028.8
35°	980.5	979.2	976.0	971.4	973.4
37.5°	926.4	925.7	921.2	913.3	908.1
40°	868.3	863.8	860.5	849.4	845.5
42.5°	804.4	803.1	797.2	784.8	780.3
45°	745.0	739.8	732.0	718.9	717.6
47.5°	683.7	676.5	669.4	653.0	652.4
50°	620.4	615.2	606.7	590.4	583.9
52.5°	561.7	554.5	542.8	527.1	523.9
55°	505.6	495.2	482.8	469.7	466.5
57.5°	445.6	441.0	426.0	415.6	411.7
60°	392.7	388.8	373.8	364.0	364.0
62.5°	345.1	339.2	326.2	319.7	319.7
65°	298.8	294.2	283.1	280.5	279.2
67.5°	259.0	253.1	245.3	244.6	247.9
70°	224.4	217.2	210.7	217.2	219.2
72.5°	191.8	187.2	181.4	189.8	193.8
75°	162.4	158.5	155.3	162.4	168.3
77.5°	135.7	131.8	131.8	139.6	144.8
80°	108.9	106.3	108.9	115.5	120.7
82.5°	83.5	81.5	84.8	91.3	94.6
85°	56.8	53.5	57.4	63.3	63.9
87.5°	26.7	26.1	28.7	32.6	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)