

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: P291059

Luminaire Tested: **14GR-LD5-28-A-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291059
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33314)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-A-UNV-L93050-W2A1-U-4000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2674.0 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

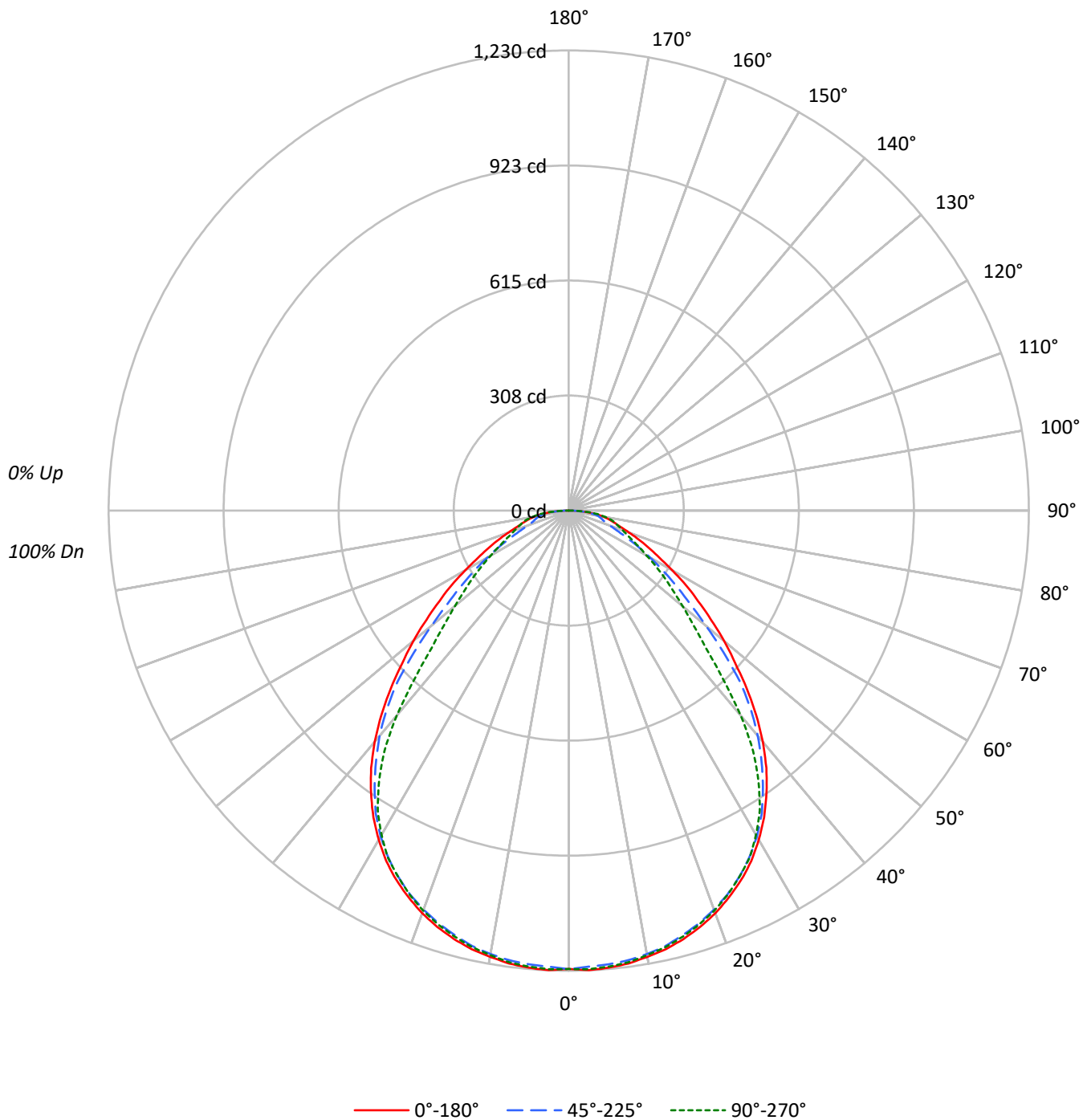
Input Watts (W): 22.785
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	106	102	98	107	103	100	97		99	96	94		95	93	91		92	90	88
2	101	94	88	83	99	92	86	82		88	84	80		85	81	78		82	79	76
3	93	84	76	71	91	82	75	70		79	74	69		77	72	68		74	70	66
4	86	75	67	61	84	74	67	61		72	65	60		69	64	59		67	62	58
5	80	68	60	54	78	67	59	53		65	58	53		63	57	52		61	56	52
6	74	62	54	48	72	61	53	47		59	52	47		58	51	47		56	51	46
7	69	57	48	43	67	56	48	43		54	47	42		53	47	42		52	46	42
8	65	52	44	38	63	51	44	38		50	43	38		49	43	38		48	42	38
9	61	48	40	35	59	47	40	35		46	39	35		45	39	35		44	39	34
10	57	44	37	32	56	44	37	32		43	36	32		42	36	32		41	36	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3297	3297	3297
5°	3313	3288	3305
10°	3309	3289	3297
15°	3303	3273	3284
20°	3279	3249	3258
25°	3236	3205	3207
30°	3157	3124	3111
35°	3028	2973	2905
40°	2834	2762	2513
45°	2560	2463	1964
50°	2270	1999	1662
55°	1981	1641	1466
60°	1718	1350	1293
65°	1507	1084	1195
70°	1344	919	1202
75°	1311	969	1343
80°	1454	1223	1540
85°	1516	1303	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	4.3
10°-20°	333.0	12.5
20°-30°	498.2	18.6
30°-40°	562.4	21.0
40°-50°	477.1	17.8
50°-60°	322.8	12.1
60°-70°	192.7	7.2
70°-80°	120.7	4.5
80°-90°	50.8	1.9
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°	947.5	35.4
0°-40°	1509.9	56.5
0°-60°	2309.9	86.4
0°-90°	2674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1227	1223	1217	1226	1224	117
15°	1186	1183	1175	1183	1179	334
25°	1090	1086	1079	1084	1080	501
35°	922	915	905	897	884	574
45°	673	675	647	555	516	518
55°	422	402	350	313	312	380
65°	237	196	170	181	188	236
75°	126	112	93	123	129	136
85°	49	47	42	55	58	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1225.3	1225.3	1225.3	1225.3	1225.3
2.5°	1229.7	1226.0	1220.4	1227.8	1227.2
5°	1226.6	1222.9	1217.3	1226.0	1223.5
7.5°	1221.0	1217.9	1212.3	1220.4	1217.9
10°	1211.1	1208.6	1203.6	1210.4	1206.7
12.5°	1200.5	1198.6	1192.4	1198.6	1194.9
15°	1185.6	1183.1	1175.0	1183.1	1178.8
17.5°	1167.0	1163.9	1157.0	1163.9	1160.1
20°	1145.2	1141.5	1134.7	1141.5	1137.8
22.5°	1119.1	1116.0	1109.8	1116.0	1111.1
25°	1090.0	1086.2	1079.4	1084.4	1080.0
27.5°	1056.4	1051.4	1045.2	1049.0	1046.5
30°	1016.0	1009.8	1005.5	1005.5	1001.1
32.5°	972.0	967.6	960.2	955.8	950.2
35°	921.6	915.4	904.9	896.8	884.4
37.5°	867.6	860.2	847.1	826.6	809.9
40°	806.8	797.4	786.3	745.9	715.5
42.5°	741.5	739.7	720.4	651.5	609.3
45°	672.6	675.1	647.1	554.6	516.1
47.5°	603.0	611.7	560.8	470.1	450.3
50°	542.2	545.3	477.6	408.0	396.9
52.5°	479.5	474.5	407.4	359.0	350.9
55°	422.3	402.4	349.7	313.0	312.4
57.5°	372.0	335.4	298.7	271.4	274.5
60°	319.2	278.2	250.9	236.0	240.3
62.5°	272.6	233.5	209.3	204.9	212.4
65°	236.6	196.3	170.2	181.3	187.6
67.5°	202.5	168.3	138.5	165.2	167.7
70°	170.8	145.9	116.8	152.2	152.8
72.5°	144.7	129.2	101.2	137.9	139.7
75°	126.1	112.4	93.2	123.0	129.2
77.5°	110.5	96.3	86.3	106.2	116.8
80°	93.8	77.6	78.9	88.8	99.4
82.5°	72.0	60.2	62.7	73.3	80.7
85°	49.1	46.6	42.2	54.7	58.4
87.5°	26.1	24.8	21.7	31.1	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)