

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P571946

Luminaire Tested: 22ID-40-L835-DBD

Issue Date: 10/5/2021

Test Information

Test Method: LM-79-2019
Report Number: P571946
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 221D-40-L835-DBD
Description: 4000 LUMEN, 2X2 INDEPTH TROFFER WITH 2IN DROPPED DOUBLE BARRELL LENS AND 3500K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

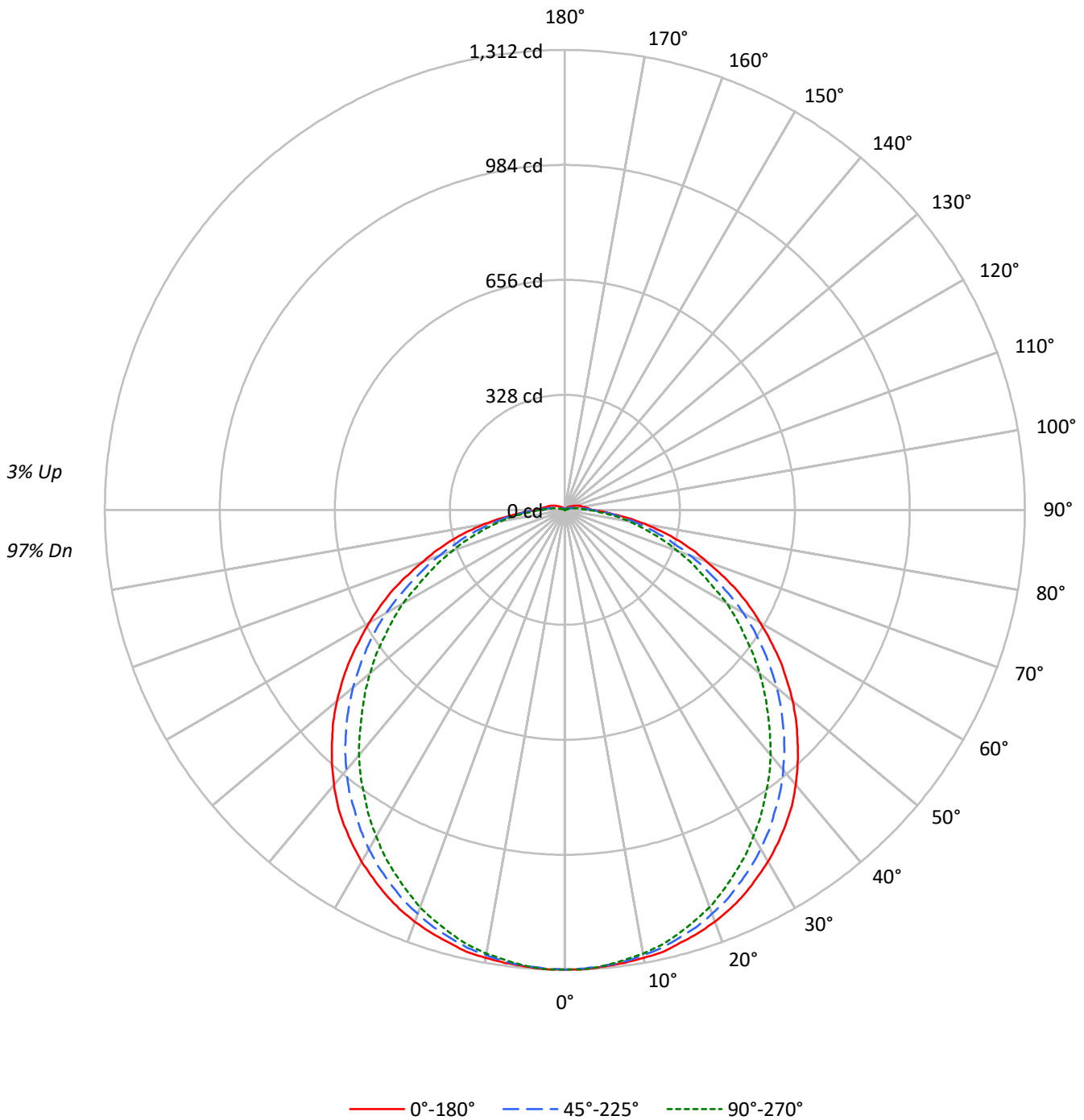
Lumens per Lamp: N/A
Luminaire Lumens: 4009.0 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.22 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.17')
CIE Type: Direct

Input Watts (W): 32.5
Input Voltage (V):
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: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	0																	
RCR																																						
0	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97																				
1	107	102	98	93	104	100	95	92	95	91	88	90	88	85	86	84	82	80																				
2	97	89	81	75	94	87	80	74	82	77	72	79	74	70	75	72	68	66																				
3	89	78	69	62	86	76	68	62	72	66	60	69	64	59	66	62	58	55																				
4	81	69	60	53	78	67	59	52	64	57	51	62	55	50	59	54	49	47																				
5	74	61	52	45	72	60	51	45	58	50	44	55	49	43	53	47	43	41																				
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	48	42	38	35																				
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	33	31																				
8	59	46	37	31	57	45	37	31	43	36	30	42	35	30	40	34	30	28																				
9	55	42	33	28	54	41	33	28	40	32	27	38	32	27	37	31	27	25																				
10	52	39	31	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3529	3529	3529
5°	3507	3491	3501
10°	3495	3453	3463
15°	3482	3414	3412
20°	3475	3368	3354
25°	3460	3312	3273
30°	3436	3251	3189
35°	3407	3175	3093
40°	3363	3097	2999
45°	3299	3001	2874
50°	3229	2894	2761
55°	3140	2769	2625
60°	3028	2630	2506
65°	2922	2427	2322
70°	2752	2261	2182
75°	2639	2074	2027
80°	2439	1896	1918
85°	2193	1720	1817

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3299 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.2	3.1
10°-20°	357.1	8.9
20°-30°	542.7	13.5
30°-40°	655.2	16.3
40°-50°	679.5	16.9
50°-60°	616.0	15.4
60°-70°	478.0	11.9
70°-80°	307.8	7.7
80°-90°	145.4	3.6
90°-100°	56.4	1.4
100°-110°	24.9	0.6
110°-120°	12.2	0.3
120°-130°	6.1	0.2
130°-140°	2.6	0.1
140°-150°	0.7	0.0
150°-160°	0.0	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1024.0	25.5
0°-40°	1679.2	41.9
0°-60°	2974.6	74.2
0°-90°	3905.9	97.4
90°-120°	93.5	2.3
90°-150°	103.0	2.6
90°-180°	103.0	2.6
0°-180°	4009.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1308	1308	1306	1304	1306	125
15°	1278	1274	1264	1256	1252	361
25°	1210	1201	1177	1155	1145	558
35°	1098	1082	1046	1012	997	687
45°	939	923	882	838	818	725
55°	749	731	690	646	626	669
65°	541	517	478	446	430	533
75°	333	311	287	268	256	350
85°	139	139	131	123	115	133
90°	77	81	77	69	63	45
95°	63	54	50	46	42	49
105°	44	34	18	12	10	45
115°	26	22	12	2	0	26
125°	16	12	6	0	0	14
135°	8	6	2	0	0	6
145°	4	2	0	0	0	2
155°	0	0	0	0	0	0
165°	0	0	0	2	2	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1311.6	1311.6	1311.6	1311.6	1311.6
2.5°	1311.6	1309.6	1309.6	1309.6	1311.6
5°	1307.6	1307.6	1305.6	1303.6	1305.6
7.5°	1303.6	1301.7	1299.7	1297.7	1295.7
10°	1297.7	1295.7	1289.8	1285.8	1285.8
12.5°	1291.8	1285.8	1279.9	1273.9	1271.9
15°	1277.9	1273.9	1264.0	1256.1	1252.1
17.5°	1266.0	1260.1	1248.2	1236.3	1230.3
20°	1250.2	1242.2	1226.4	1212.5	1206.6
22.5°	1232.3	1222.4	1204.6	1184.8	1176.8
25°	1210.5	1200.6	1176.8	1155.1	1145.1
27.5°	1184.8	1174.9	1149.1	1121.4	1113.4
30°	1159.0	1147.1	1117.4	1087.7	1075.8
32.5°	1129.3	1115.4	1083.7	1050.0	1038.2
35°	1097.6	1081.7	1046.1	1012.4	996.6
37.5°	1063.9	1048.1	1010.4	972.8	956.9
40°	1024.3	1008.4	968.8	927.2	913.3
42.5°	982.7	966.8	927.2	883.6	865.8
45°	939.1	923.2	881.6	838.1	818.2
47.5°	895.5	879.7	836.1	792.5	772.7
50°	848.0	832.1	788.5	743.0	725.1
52.5°	798.4	782.6	739.0	695.4	677.6
55°	748.9	731.1	689.5	645.9	626.1
57.5°	695.4	679.6	639.9	598.3	580.5
60°	643.9	626.1	588.4	548.8	532.9
62.5°	592.4	572.6	532.9	493.3	477.5
65°	540.9	517.1	477.5	445.8	429.9
67.5°	483.4	461.6	429.9	398.2	386.3
70°	429.9	412.1	380.4	354.6	340.8
72.5°	382.4	360.6	330.9	311.1	299.2
75°	332.8	311.1	287.3	267.5	255.6
77.5°	281.3	263.5	243.7	229.8	217.9
80°	231.8	217.9	204.1	190.2	182.3
82.5°	182.3	174.3	166.4	156.5	148.6
85°	138.7	138.7	130.8	122.8	114.9
87.5°	103.0	105.0	101.0	93.1	87.2
90°	77.3	81.2	77.3	69.3	63.4
92.5°	69.3	65.4	61.4	57.5	51.5
95°	63.4	53.5	49.5	45.6	41.6
97.5°	57.5	45.6	39.6	35.7	31.7
100°	51.5	39.6	29.7	25.8	23.8
102.5°	47.5	37.6	23.8	17.8	17.8
105°	43.6	33.7	17.8	11.9	9.9
107.5°	37.6	29.7	15.8	7.9	5.9
110°	33.7	27.7	13.9	4.0	2.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	29.7	23.8	13.9	4.0	0.0
115°	25.8	21.8	11.9	2.0	0.0
117.5°	23.8	17.8	9.9	2.0	0.0
120°	19.8	15.8	7.9	2.0	0.0
122.5°	17.8	13.9	7.9	2.0	0.0
125°	15.8	11.9	5.9	0.0	0.0
127.5°	13.9	9.9	5.9	0.0	0.0
130°	11.9	9.9	4.0	0.0	0.0
132.5°	9.9	7.9	4.0	0.0	0.0
135°	7.9	5.9	2.0	0.0	0.0
137.5°	5.9	5.9	2.0	0.0	0.0
140°	5.9	4.0	2.0	0.0	0.0
142.5°	4.0	4.0	0.0	0.0	0.0
145°	4.0	2.0	0.0	0.0	0.0
147.5°	2.0	2.0	0.0	0.0	0.0
150°	2.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	2.0	2.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	2.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	2.0	2.0	2.0
180°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.88	17.49	16.29	17.86	18.24	14.93	16.54	15.34	16.90	17.28
	3H	17.77	19.23	18.19	19.61	20.03	16.67	18.13	17.08	18.51	18.93
	4H	18.56	19.93	18.99	20.33	20.77	17.36	18.74	17.80	19.14	19.58
	6H	19.21	20.49	19.66	20.90	21.35	17.95	19.23	18.40	19.65	20.10
	8H	19.45	20.68	19.92	21.12	21.58	18.19	19.42	18.66	19.86	20.32
	12H	19.66	20.83	20.13	21.27	21.76	18.39	19.57	18.86	20.00	20.49
4H	2H	16.38	17.76	16.82	18.16	18.60	15.62	17.00	16.06	17.40	17.84
	3H	18.50	19.66	18.95	20.11	20.57	17.58	18.74	18.03	19.19	19.65
	4H	19.42	20.48	19.89	20.94	21.44	18.41	19.47	18.88	19.93	20.42
	6H	20.23	21.16	20.72	21.64	22.16	19.14	20.07	19.63	20.56	21.07
	8H	20.54	21.42	21.04	21.90	22.43	19.44	20.31	19.93	20.80	21.32
	12H	20.82	21.61	21.34	22.13	22.66	19.70	20.49	20.22	21.01	21.54
8H	4H	19.69	20.57	20.19	21.06	21.58	18.80	19.67	19.30	20.16	20.69
	6H	20.63	21.37	21.17	21.90	22.43	19.68	20.41	20.21	20.94	21.48
	8H	21.05	21.71	21.59	22.26	22.80	20.07	20.74	20.62	21.28	21.83
	12H	21.44	22.03	21.98	22.56	23.18	20.45	21.04	21.00	21.58	22.19
12H	4H	19.73	20.52	20.25	21.04	21.56	18.86	19.65	19.38	20.17	20.70
	6H	20.70	21.36	21.24	21.91	22.45	19.78	20.44	20.33	20.99	21.53
	8H	21.17	21.76	21.72	22.30	22.91	20.25	20.84	20.80	21.37	21.99