

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: SURE-LITES

Report Number: P11725

Luminaire Tested: **029-149 12V 12W**

Issue Date: 03/03/2020



Test Information

Test Method: LM-79-08
Report Number: P11725
Test Lab: PEACHTREE CITY
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SURE-LITES
Catalog Number: 029-149 12V 12W
Description: FUSHAN LIGHTING BEAM FORMING LAMP
029-149 12V 12W 12 DEGREES.
Light Source: BIPIN LENSED 12 DEGREES MR11 HALOGEN INCANDESCENT LAMP.
12V 12W MR11 12 WATTS
Ballast/Driver: -

Summary

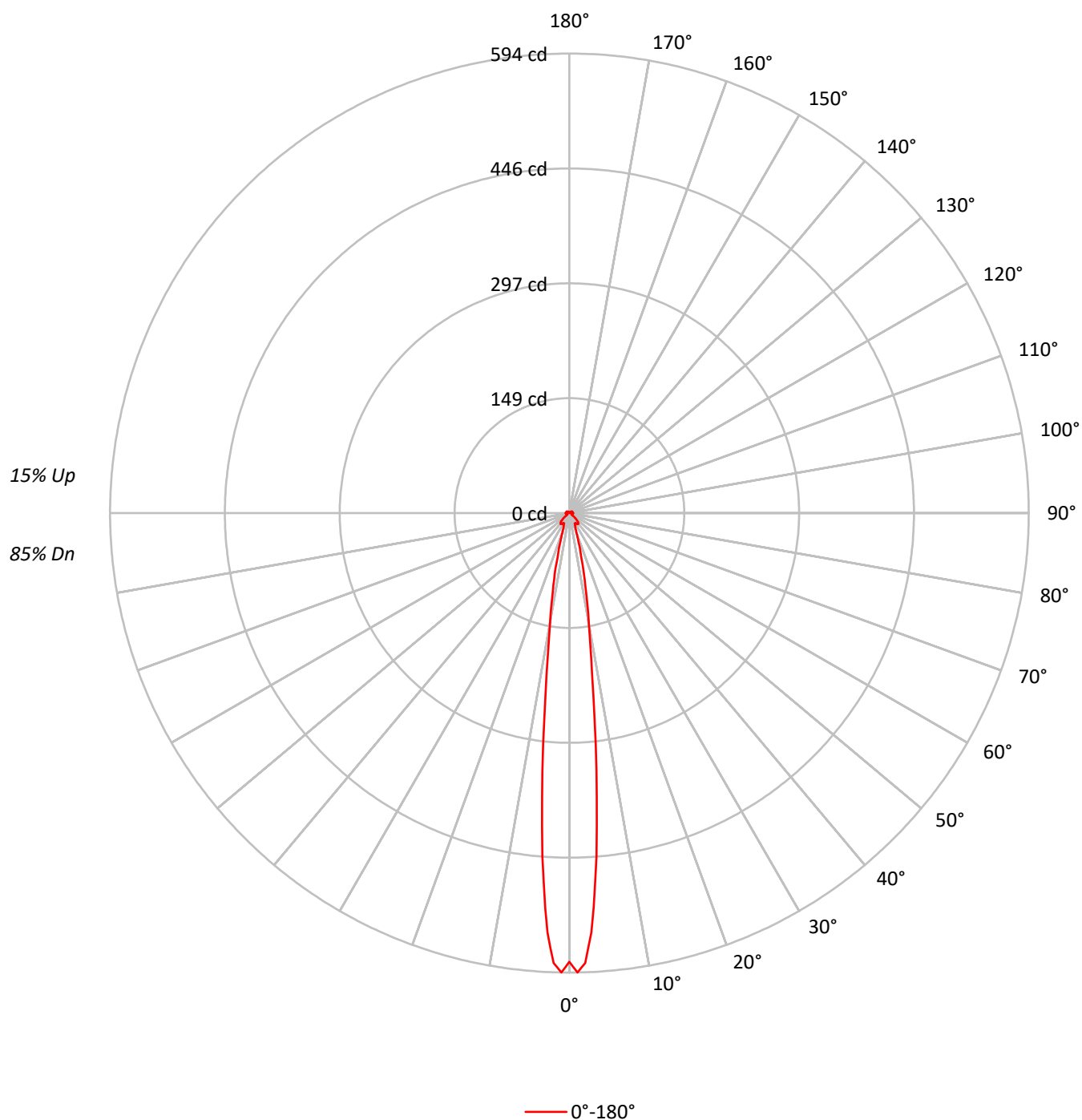
Lumens per Lamp: 110 (1 lamp)
Luminaire Lumens: 109.9 lumens
Efficiency: 100.0%
Efficacy: 9.2 lumens/watt
Spacing Criteria (0/90/45): 0.23 / 0.23 / 0.24
Luminous Opening: Circular (Dia: 0.11' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 12
Input Voltage (V): NR
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

TEST NUMBER: P11725

CATALOG NUMBER: 029-149 12V 12W

Luminous Intensity Polar Plot





TEST NUMBER: P11725

CATALOG NUMBER: 029-149 12V 12W

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	115	115	115	115		111	111	111	111		103	103	103		95	95	95		88	88	88
1	107	103	99	96		103	99	96	93		92	90	87		86	84	82		80	78	77
2	100	94	89	84		96	91	86	82		85	81	78		80	77	74		75	72	70
3	95	87	81	76		91	84	79	74		79	75	71		75	71	68		70	68	65
4	89	81	74	69		86	79	73	68		74	70	66		70	67	63		67	64	61
5	85	76	69	64		82	74	68	63		70	65	61		67	63	59		64	60	58
6	81	71	65	60		78	70	64	59		67	62	58		64	59	56		61	57	55
7	77	68	61	57		75	66	60	56		63	58	55		61	57	53		59	55	52
8	74	64	58	54		72	63	57	53		61	56	52		58	54	51		56	53	50
9	71	61	55	51		69	60	55	51		58	53	50		56	52	49		54	51	48
10	69	59	53	49		67	58	53	49		56	51	48		54	50	47		53	49	46

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	605436
5°	425424
10°	152634
15°	64841
20°	28882
25°	19580
30°	18080
35°	21663
40°	24528
45°	22143
50°	14616
55°	5460
60°	6263
65°	7410
70°	12208
75°	16133
80°	24045
85°	59884



TEST NUMBER: P11725

CATALOG NUMBER: 029-149 12V 12W

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp	0°	Flux
0°-10°	29.2	26.5	26.5	0°	580
10°-20°	17.9	16.3	16.3	5°	406
20°-30°	8.2	7.5	7.5	15°	60
30°-40°	10.6	9.7	9.7	25°	17
40°-50°	11.0	10.0	10.0	35°	17
50°-60°	3.8	3.4	3.4	45°	15
60°-70°	3.1	2.8	2.8	55°	3
70°-80°	4.2	3.8	3.8	65°	3
80°-90°	5.0	4.6	4.6	75°	4
90°-100°	4.5	4.1	4.1	85°	5
100°-110°	3.4	3.1	3.1	90°	5
110°-120°	4.0	3.6	3.6	95°	4
120°-130°	2.9	2.7	2.7	105°	3
130°-140°	1.3	1.2	1.2	115°	4
140°-150°	0.6	0.6	0.6	125°	3
150°-160°	0.1	0.1	0.1	135°	2
160°-170°	0.0	0.0	0.0	145°	1
170°-180°	0.0	0.0	0.0	155°	0
0°-30°	55.3	50.3	50.3	165°	0
0°-40°	65.9	60.0	60.0	175°	0
0°-60°	80.8	73.4	73.4	180°	0
0°-90°	93.1	84.7	84.7		
90°-120°	11.9	10.8	10.8		
90°-150°	16.7	15.2	15.2		
90°-180°	17.0	15.5	15.5		
0°-180°	109.9	100.0	100.0		



TEST NUMBER: P11725

CATALOG NUMBER: 029-149 12V 12W

CANDELA DISTRIBUTION (FULL):

0°	
0°	580
1°	594
2°	582
3°	543
3.5°	511
4°	477
4.5°	445
5°	406
5.5°	368
6°	336
7°	265
8°	212
9°	173
10°	144
11°	122
12°	103
12.5°	95
15°	60
17.5°	38
20°	26
22.5°	20
25°	17
27.5°	15
30°	15
32.5°	16
35°	17
37.5°	18
40°	18
42.5°	17
45°	15
47.5°	12
50°	9
52.5°	5
55°	3
57.5°	3
60°	3
62.5°	3
65°	3
67.5°	3
70°	4
72.5°	4
75°	4
77.5°	4
80°	4
82.5°	4



TEST NUMBER: P11725

CATALOG NUMBER: 029-149 12V 12W

CANDELA DISTRIBUTION (continued):

	0°
85°	5
87.5°	5
90°	5
92.5°	4
95°	4
97.5°	4
100°	4
102.5°	3
105°	3
107.5°	3
110°	4
112.5°	4
115°	4
117.5°	4
120°	4
122.5°	4
125°	3
127.5°	3
130°	2
132.5°	2
135°	2
137.5°	1
140°	1
142.5°	1
145°	1
147.5°	1
150°	1
152.5°	0
155°	0
157.5°	0
160°	0
162.5°	0
165°	0
167.5°	0
170°	0
172.5°	0
175°	0
177.5°	0
180°	0

(END OF REPORT)