

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: NEO-RAY

Report Number: P243352

Luminaire Tested: **S123DR-H560D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243352
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-54)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H560D927-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1719.0 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

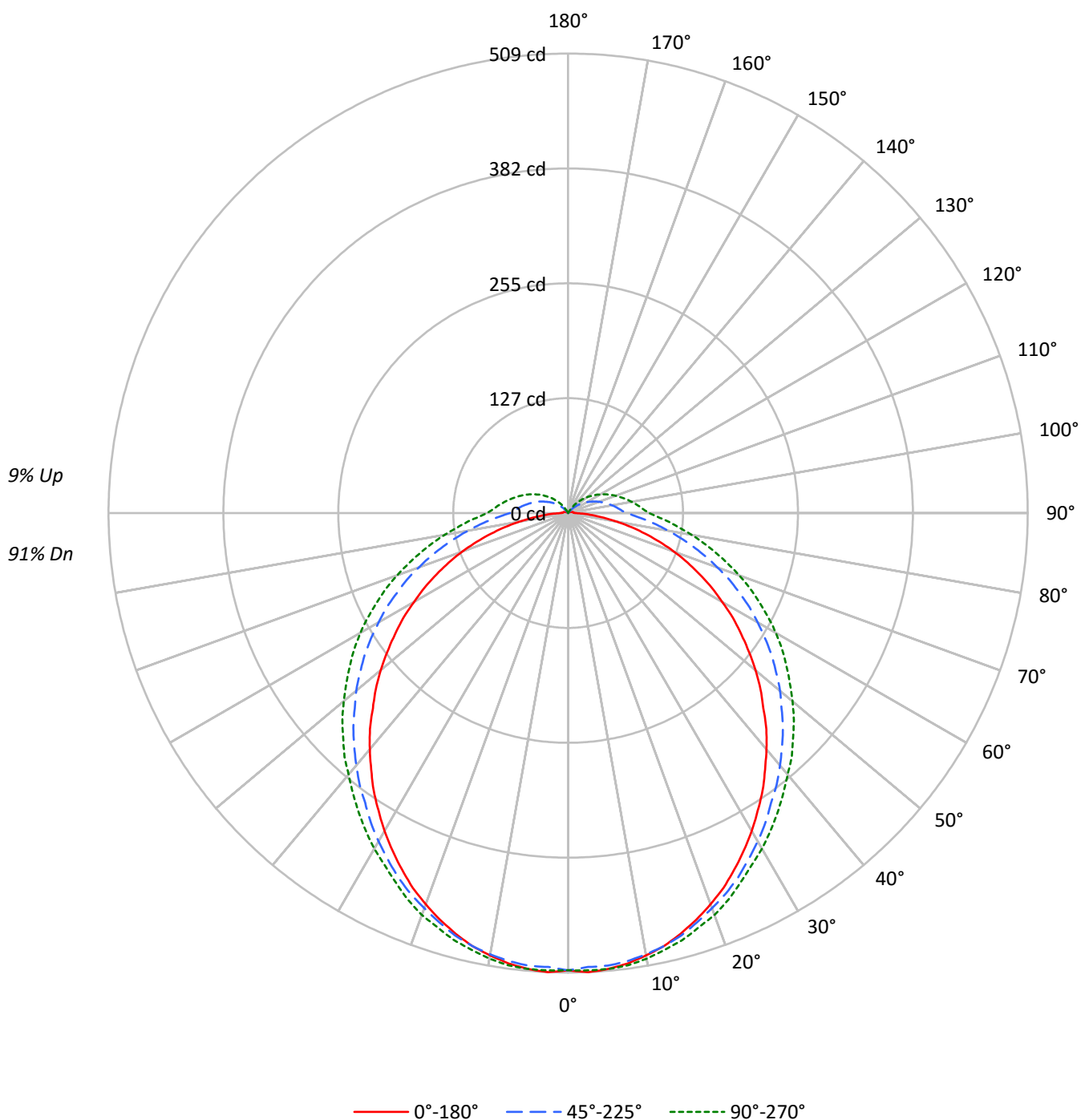
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243352

CATALOG NUMBER: S123DR-H560D927-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot



TEST NUMBER: P243352

CATALOG NUMBER: S123DR-H560D927-X4F0-XX-UDD-D-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20
RC	80					70					50					30					10
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																					
0	117	117	117	117		113	113	113	113		106	106	106		100	100	100		94	94	94
1	105	100	95	90		101	96	92	88		91	87	84		85	82	80		80	78	76
2	95	86	79	72		91	83	77	71		78	73	68		74	69	65		69	66	62
3	86	75	66	60		83	73	65	58		69	62	56		65	59	54		61	56	52
4	79	66	57	50		76	64	56	49		61	53	48		57	51	46		54	49	45
5	72	59	50	43		70	57	49	42		54	47	41		51	45	40		49	43	39
6	67	53	44	37		64	52	43	37		49	41	36		46	40	35		44	38	34
7	62	48	39	33		60	47	38	32		44	37	32		42	36	31		40	34	30
8	57	44	35	29		55	43	34	29		41	33	28		39	32	27		37	31	27
9	54	40	32	26		52	39	31	26		37	30	25		36	29	25		34	28	24
10	50	37	29	24		49	36	29	23		35	28	23		33	27	22		32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6139	6139	6139
5°	6157	5981	5979
10°	6100	5830	5797
15°	6016	5664	5598
20°	5902	5467	5396
25°	5769	5283	5164
30°	5623	5079	4967
35°	5474	4870	4771
40°	5311	4700	4584
45°	5132	4532	4429
50°	4981	4361	4267
55°	4798	4187	4106
60°	4604	3993	3952
65°	4403	3786	3761
70°	4169	3566	3576
75°	3824	3324	3358
80°	3385	3086	3166
85°	3003	2895	3021

TEST NUMBER: P243352

CATALOG NUMBER: S123DR-H560D927-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	2.8
10°-20°	137.1	8.0
20°-30°	205.3	11.9
30°-40°	245.7	14.3
40°-50°	257.6	15.0
50°-60°	242.2	14.1
60°-70°	202.7	11.8
70°-80°	145.4	8.5
80°-90°	87.1	5.1
90°-100°	55.2	3.2
100°-110°	40.7	2.4
110°-120°	27.2	1.6
120°-130°	15.7	0.9
130°-140°	7.3	0.4
140°-150°	1.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	390.5	22.7
0°-40°	636.2	37.0
0°-60°	1136.0	66.1
0°-90°	1571.2	91.4
90°-120°	123.2	7.2
90°-150°	147.8	8.6
90°-180°	148.0	8.6
0°-180°	1719.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	507	506	503	508	507	48
15°	482	485	484	491	490	136
25°	436	442	445	452	452	201
35°	376	384	392	402	404	235
45°	306	321	336	348	352	237
55°	234	254	275	290	295	210
65°	161	184	209	228	233	159
75°	88	115	143	163	169	94
85°	27	55	86	105	112	28
90°	7	35	64	84	90	5
95°	6	28	56	74	80	5
105°	4	18	43	59	63	5
115°	3	10	30	44	49	3
125°	2	2	18	30	34	2
135°	1	0	8	17	21	1
145°	0	0	0	5	7	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P243352

CATALOG NUMBER: S123DR-H560D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	506.5	506.5	506.5	506.5	506.5
2.5°	509.1	507.5	503.3	508.1	507.0
5°	507.0	506.5	503.3	507.5	507.0
7.5°	503.3	503.3	500.7	505.4	505.4
10°	497.5	499.1	496.4	501.7	501.2
12.5°	491.2	493.3	491.2	497.0	495.4
15°	482.2	485.4	484.3	490.6	489.6
17.5°	472.2	475.8	475.3	481.7	481.1
20°	461.1	465.8	465.8	472.2	473.7
22.5°	449.4	454.7	456.3	462.6	463.7
25°	435.7	441.5	445.2	452.1	451.6
27.5°	421.4	428.3	432.5	439.9	439.9
30°	406.7	414.6	419.9	427.8	429.4
32.5°	390.8	400.3	406.7	415.1	417.2
35°	375.5	384.5	391.9	401.9	404.5
37.5°	358.1	369.2	379.2	389.8	391.3
40°	341.7	353.8	364.9	376.0	378.1
42.5°	324.8	337.5	350.7	361.8	366.5
45°	305.8	321.1	336.4	348.0	352.3
47.5°	288.9	304.2	320.6	334.3	339.1
50°	270.9	286.8	306.3	319.5	324.3
52.5°	252.4	269.9	290.5	304.7	309.5
55°	234.0	253.5	275.2	289.9	295.2
57.5°	216.5	236.1	258.8	275.2	281.0
60°	197.0	218.6	242.4	259.3	265.7
62.5°	179.6	201.7	226.6	243.5	249.8
65°	160.6	184.3	209.1	227.6	233.4
67.5°	143.1	166.4	193.3	211.8	218.1
70°	124.6	148.9	175.9	194.9	201.7
72.5°	106.2	132.0	159.5	179.0	184.8
75°	88.2	115.1	143.1	162.7	169.0
77.5°	71.3	98.2	127.3	146.8	153.7
80°	54.4	82.4	112.5	132.0	138.9
82.5°	39.6	68.1	98.8	117.8	124.1
85°	26.9	54.9	85.6	105.1	112.0
87.5°	15.8	44.4	73.9	93.5	99.3
90°	7.4	34.9	64.4	84.0	89.8
92.5°	6.9	31.2	59.7	78.2	84.0
95°	5.8	28.5	56.0	73.9	79.7
97.5°	5.8	25.9	52.8	70.2	75.5
100°	5.3	23.2	49.6	66.0	71.3
102.5°	4.8	20.6	45.9	62.3	67.6
105°	4.2	18.5	42.8	58.6	63.4
107.5°	3.7	15.8	39.6	54.9	59.7
110°	3.7	13.7	36.4	51.2	56.0



TEST NUMBER: P243352

CATALOG NUMBER: S123DR-H560D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.2	11.6	33.3	47.5	52.3
115°	2.6	9.5	30.1	43.8	48.6
117.5°	2.6	7.4	26.9	40.7	44.9
120°	2.6	5.8	24.3	37.0	41.2
122.5°	2.1	3.7	21.7	33.8	38.0
125°	2.1	2.1	18.5	30.1	34.3
127.5°	1.6	1.1	15.8	26.9	30.6
130°	1.6	1.1	13.2	23.8	27.5
132.5°	1.1	1.1	10.6	20.6	24.3
135°	1.1	0.5	7.9	17.4	20.6
137.5°	1.1	0.5	5.3	14.3	17.4
140°	0.5	0.5	2.6	11.1	14.3
142.5°	0.5	0.0	0.5	8.5	11.1
145°	0.5	0.0	0.0	5.3	7.4
147.5°	0.5	0.0	0.0	2.6	4.8
150°	0.5	0.0	0.0	0.0	1.6
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	0.0	0.0
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	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)