

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: P243179

Luminaire Tested: **S122DR-H290D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243179
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-53)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-H290D927-X4F0-XX-UDD-D-W
Description: DEFINE 2 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: 913.7 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.15' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

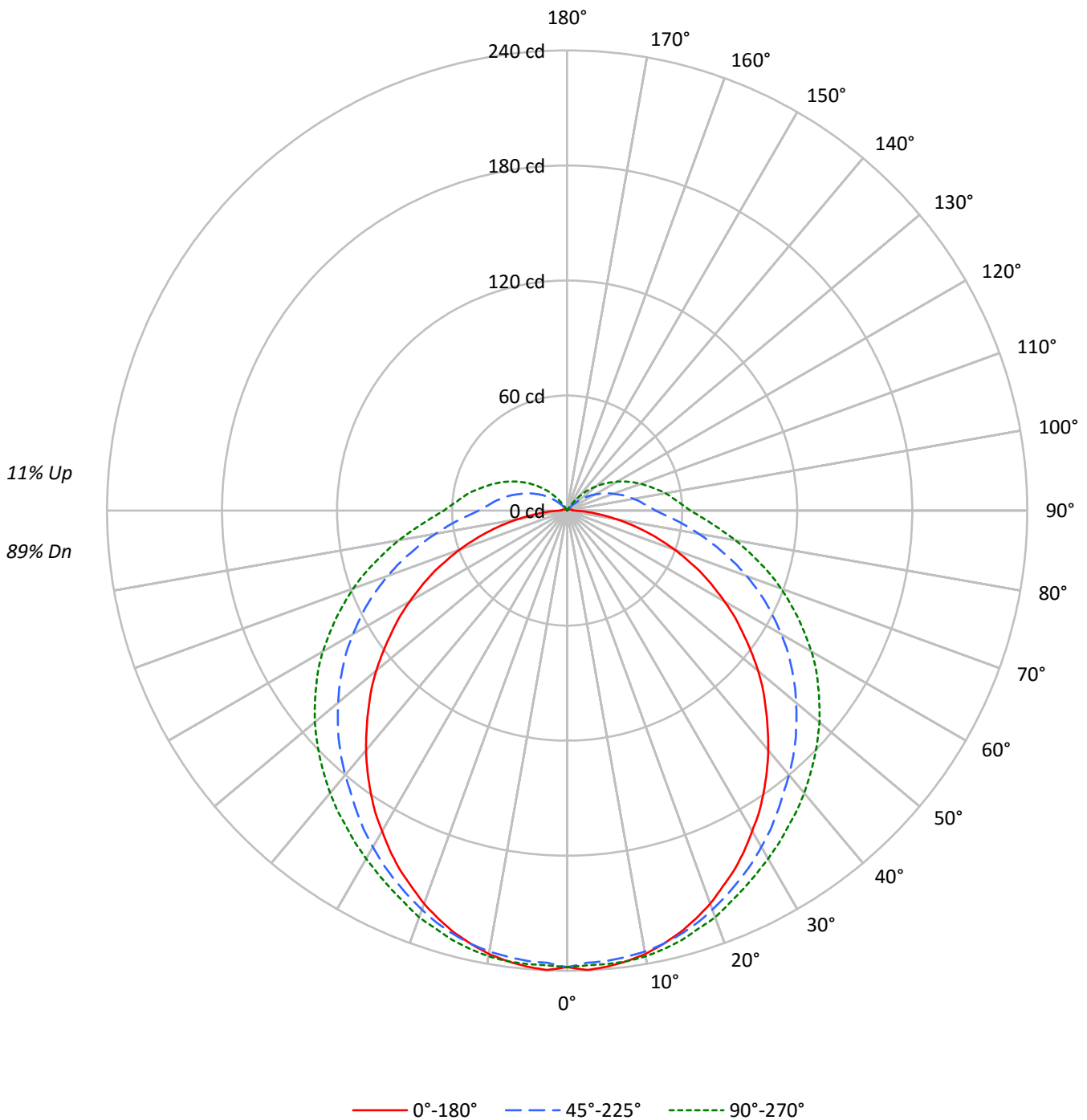
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	95	90	86	88	84	81	82	79	76	77	74	72	69
2	93	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	41	39
5	71	57	48	41	68	55	47	40	52	44	39	49	42	37	46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	41	36	31	29
7	60	46	37	31	58	45	37	30	42	35	29	40	33	28	38	32	28	25
8	56	42	33	27	54	41	33	27	39	31	26	37	30	25	35	29	25	22
9	52	39	30	25	50	38	30	24	36	28	24	34	27	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4535	4535	4535
5°	4557	4349	4323
10°	4524	4205	4149
15°	4466	4056	3964
20°	4389	3895	3789
25°	4299	3737	3611
30°	4193	3588	3466
35°	4096	3441	3338
40°	3986	3313	3232
45°	3866	3198	3127
50°	3756	3081	3029
55°	3612	2968	2922
60°	3482	2847	2818
65°	3343	2722	2694
70°	3139	2575	2572
75°	2916	2416	2432
80°	2591	2260	2307
85°	2263	2139	2185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.6	2.5
10°-20°	64.8	7.1
20°-30°	98.2	10.7
30°-40°	119.8	13.1
40°-50°	128.9	14.1
50°-60°	125.3	13.7
60°-70°	109.5	12.0
70°-80°	84.3	9.2
80°-90°	56.7	6.2
90°-100°	39.2	4.3
100°-110°	28.8	3.2
110°-120°	19.2	2.1
120°-130°	10.9	1.2
130°-140°	4.7	0.5
140°-150°	0.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	185.6	20.3
0°-40°	305.3	33.4
0°-60°	559.5	61.2
0°-90°	810.0	88.7
90°-120°	87.3	9.5
90°-150°	103.7	11.3
90°-180°	104.0	11.4
0°-180°	913.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	238	238	238	238	238	
5°	239	238	236	238	237	23
15°	228	229	229	232	232	64
25°	207	210	213	217	218	95
35°	179	185	191	199	201	112
45°	147	156	168	179	182	113
55°	112	125	143	156	160	100
65°	78	94	115	129	133	76
75°	43	62	84	99	104	45
85°	13	34	57	71	75	13
90°	4	24	46	60	64	2
95°	3	19	40	53	57	2
105°	2	12	30	42	46	2
115°	1	6	21	32	36	1
125°	1	1	13	22	25	1
135°	0	0	4	12	15	0
145°	0	0	0	3	4	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	238.1	238.1	238.1	238.1	238.1
2.5°	239.8	238.8	236.1	238.1	237.4
5°	238.8	237.8	235.8	237.8	237.4
7.5°	237.1	236.5	234.8	237.4	237.1
10°	234.8	234.5	233.5	236.1	236.1
12.5°	231.5	231.8	231.5	234.5	234.1
15°	227.8	228.8	228.8	231.8	231.8
17.5°	223.2	224.8	225.5	228.8	228.5
20°	218.2	220.2	221.5	225.2	225.8
22.5°	212.2	215.2	217.2	221.2	221.5
25°	206.6	209.9	212.6	217.2	217.6
27.5°	200.0	204.0	207.9	212.6	213.6
30°	193.0	198.0	202.6	208.3	209.6
32.5°	186.4	191.4	197.3	203.3	205.6
35°	178.8	184.7	191.4	198.6	201.0
37.5°	171.1	177.4	185.4	194.0	197.0
40°	163.2	170.5	180.1	189.4	192.3
42.5°	154.9	162.8	174.4	184.1	187.4
45°	146.6	155.5	168.5	178.8	182.4
47.5°	138.6	148.2	162.2	173.8	177.1
50°	130.0	140.6	155.9	167.8	171.8
52.5°	121.0	133.0	149.6	161.8	165.8
55°	112.1	125.4	142.9	155.9	159.8
57.5°	103.8	117.7	136.3	149.2	153.9
60°	94.8	109.8	129.0	142.6	147.2
62.5°	85.9	102.1	121.7	135.6	139.9
65°	77.6	94.2	114.7	128.7	133.0
67.5°	68.3	85.9	107.1	121.7	125.7
70°	59.7	78.3	99.5	114.1	118.7
72.5°	51.1	70.0	91.9	106.5	111.4
75°	42.8	62.3	84.2	99.2	103.5
77.5°	34.2	54.7	76.9	91.9	96.2
80°	26.5	47.1	69.6	84.6	89.2
82.5°	18.9	40.1	63.0	77.6	81.9
85°	12.9	34.2	56.7	71.0	75.3
87.5°	7.6	28.5	50.7	65.0	69.3
90°	3.6	23.9	46.1	60.0	64.3
92.5°	3.0	21.6	42.8	56.4	60.7
95°	2.7	19.2	40.1	53.4	57.4
97.5°	2.7	17.6	37.8	50.7	54.7
100°	2.3	15.6	35.2	47.8	52.1
102.5°	2.3	13.6	32.8	45.1	49.1
105°	2.0	11.9	30.5	42.4	46.1
107.5°	1.7	10.3	27.9	39.8	43.4
110°	1.7	8.6	25.5	37.1	40.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.3	7.3	23.5	34.5	38.1
115°	1.3	5.6	21.2	31.8	35.5
117.5°	1.3	4.0	18.9	29.2	32.8
120°	1.0	2.7	16.9	26.9	30.2
122.5°	1.0	1.7	14.6	24.2	27.5
125°	1.0	0.7	12.6	21.6	24.9
127.5°	0.7	0.7	10.3	19.2	22.2
130°	0.7	0.3	8.3	16.6	19.6
132.5°	0.7	0.3	6.3	14.3	16.9
135°	0.3	0.3	4.3	11.6	14.6
137.5°	0.3	0.3	2.3	9.3	11.6
140°	0.3	0.0	1.0	7.0	9.0
142.5°	0.3	0.0	0.0	4.6	6.6
145°	0.3	0.0	0.0	2.7	4.0
147.5°	0.0	0.0	0.0	0.7	2.0
150°	0.0	0.0	0.0	0.0	0.3
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)