

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: P243139

Luminaire Tested: **S122DR-H290D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243139  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-H290D940-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1030.6 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

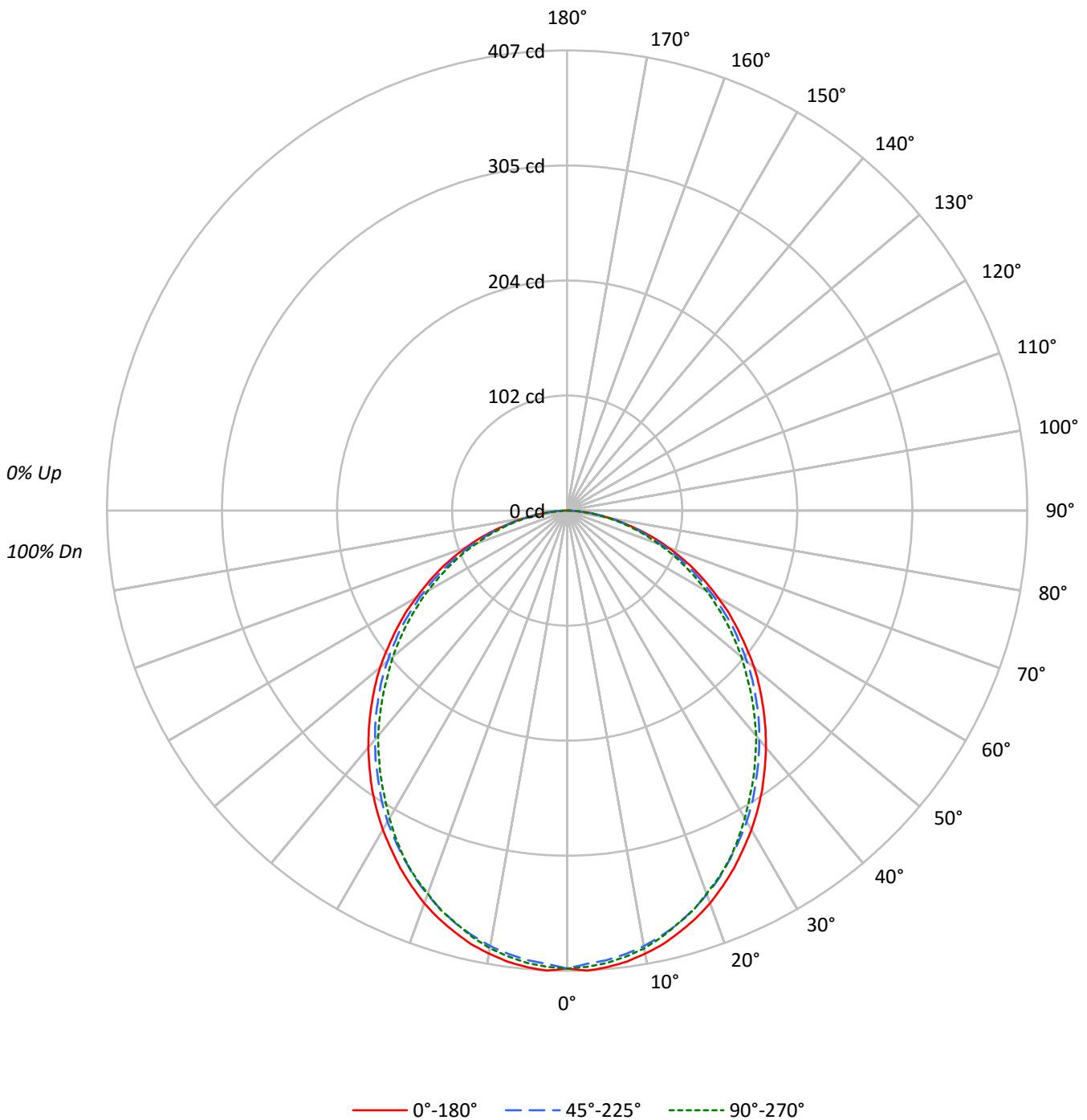
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P243139

CATALOG NUMBER: S122DR-H290D940-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P243139

CATALOG NUMBER: S122DR-H290D940-X4F0-XX-UDD-F-W

**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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7714	7714	7714
5°	7751	7631	7681
10°	7696	7566	7603
15°	7604	7464	7458
20°	7492	7326	7309
25°	7335	7154	7148
30°	7168	6988	6913
35°	6997	6771	6683
40°	6803	6572	6470
45°	6597	6365	6204
50°	6404	6152	5962
55°	6137	5924	5702
60°	5874	5646	5432
65°	5620	5350	5116
70°	5280	5012	4762
75°	4806	4614	4394
80°	4179	4059	3894
85°	3584	3191	2929



TEST NUMBER: P243139

CATALOG NUMBER: S122DR-H290D940-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.1	3.7
10°-20°	107.3	10.4
20°-30°	157.8	15.3
30°-40°	183.3	17.8
40°-50°	183.0	17.8
50°-60°	159.4	15.5
60°-70°	117.9	11.4
70°-80°	66.5	6.4
80°-90°	17.3	1.7
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°	303.3	29.4
0°-40°	486.6	47.2
0°-60°	829.0	80.4
0°-90°	1030.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1030.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	405	405	405	405	405	
5°	405	404	399	402	402	38
15°	386	384	378	380	378	109
25°	349	346	340	340	340	161
35°	301	298	291	289	287	188
45°	245	242	236	233	230	189
55°	185	183	178	174	172	166
65°	125	123	119	115	114	123
75°	65	65	63	60	60	69
85°	16	16	15	14	13	19
90°	0	0	0	0	0	



TEST NUMBER: P243139

CATALOG NUMBER: S122DR-H290D940-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	405.0	405.0	405.0	405.0	405.0
2.5°	407.3	405.4	401.3	404.7	403.9
5°	405.4	403.5	399.1	402.4	401.7
7.5°	402.4	400.5	395.7	399.1	397.9
10°	397.9	395.7	391.2	393.5	393.1
12.5°	392.7	390.5	385.2	387.1	386.4
15°	385.6	383.8	378.5	380.0	378.2
17.5°	378.2	375.2	370.3	371.8	370.7
20°	369.6	366.6	361.4	362.1	360.6
22.5°	359.5	356.5	351.6	351.6	350.9
25°	349.0	346.0	340.4	340.1	340.1
27.5°	337.5	334.8	329.2	328.1	327.4
30°	325.9	323.6	317.7	315.4	314.3
32.5°	313.6	310.6	305.0	302.4	300.5
35°	300.9	297.5	291.2	288.6	287.4
37.5°	287.1	283.7	278.1	275.9	273.6
40°	273.6	270.6	264.3	260.9	260.2
42.5°	259.4	256.5	250.9	247.1	244.9
45°	244.9	242.3	236.3	232.6	230.3
47.5°	230.7	227.7	222.5	218.0	215.0
50°	216.1	213.2	207.6	202.3	201.2
52.5°	200.1	198.2	192.6	187.8	186.3
55°	184.8	183.3	178.4	173.6	171.7
57.5°	170.2	168.4	162.8	159.0	156.8
60°	154.2	153.1	148.2	144.1	142.6
62.5°	139.2	137.7	133.6	129.5	127.7
65°	124.7	122.8	118.7	115.0	113.5
67.5°	109.7	107.9	104.5	101.5	100.0
70°	94.8	93.3	90.0	87.4	85.5
72.5°	80.3	78.8	75.8	73.2	72.8
75°	65.3	65.0	62.7	60.5	59.7
77.5°	51.5	51.1	49.6	48.5	47.8
80°	38.1	38.1	37.0	35.8	35.5
82.5°	26.1	26.5	25.4	24.6	24.6
85°	16.4	15.7	14.6	13.8	13.4
87.5°	6.7	5.6	5.2	4.1	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)