

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: P242264

Luminaire Tested: **S122DR-S290D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242264  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-S290D840-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1166.7 lumens  
Efficiency: N/A  
Efficacy: 100.6 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

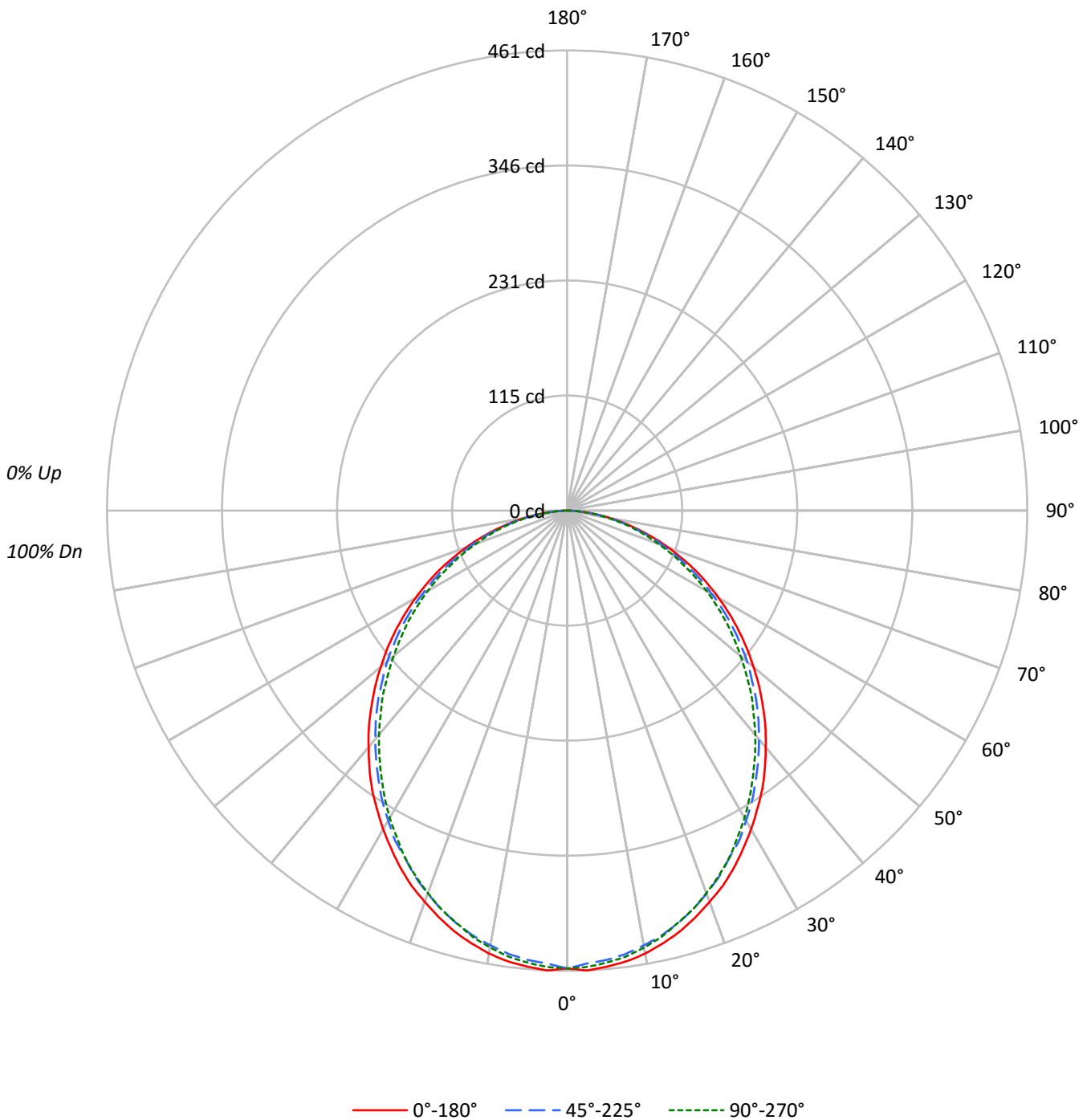
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242264

CATALOG NUMBER: S122DR-S290D840-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242264

CATALOG NUMBER: S122DR-S290D840-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	27	38	32	27	37	32	27	26

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

	0°	45°	90°
0°	8735	8735	8735
5°	8769	8642	8692
10°	8715	8555	8597
15°	8608	8442	8434
20°	8455	8276	8268
25°	8304	8073	8073
30°	8107	7885	7817
35°	7925	7660	7546
40°	7696	7435	7290
45°	7470	7208	7031
50°	7225	6979	6730
55°	6970	6705	6459
60°	6686	6385	6149
65°	6378	6062	5783
70°	5992	5675	5402
75°	5453	5225	5093
80°	4837	4695	4453
85°	3956	3759	3366



TEST NUMBER: P242264

CATALOG NUMBER: S122DR-S290D840-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.2	3.7
10°-20°	121.4	10.4
20°-30°	178.5	15.3
30°-40°	207.3	17.8
40°-50°	207.0	17.7
50°-60°	180.5	15.5
60°-70°	133.4	11.4
70°-80°	75.5	6.5
80°-90°	19.9	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°	343.1	29.4
0°-40°	550.3	47.2
0°-60°	937.8	80.4
0°-90°	1166.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1166.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	459	459	459	459	459	
5°	459	457	452	456	455	44
15°	436	434	428	430	428	123
25°	395	392	384	385	384	182
35°	341	336	329	327	324	213
45°	277	274	268	263	261	214
55°	210	207	202	197	194	188
65°	142	139	134	130	128	140
75°	74	73	71	68	69	79
85°	18	18	17	16	15	21
90°	0	0	0	0	0	



TEST NUMBER: P242264

CATALOG NUMBER: S122DR-S290D840-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	458.6	458.6	458.6	458.6	458.6
2.5°	461.2	459.0	454.2	458.6	457.7
5°	458.6	456.8	452.0	455.5	454.6
7.5°	455.5	452.8	448.0	451.5	450.6
10°	450.6	447.5	442.3	445.8	444.5
12.5°	444.0	441.4	436.1	438.3	437.4
15°	436.5	433.9	428.1	429.9	427.7
17.5°	427.3	424.6	418.9	421.1	418.9
20°	417.1	414.5	408.3	409.6	407.9
22.5°	407.0	403.0	397.3	397.3	396.4
25°	395.1	391.5	384.1	384.9	384.1
27.5°	381.8	378.8	373.0	371.7	369.5
30°	368.6	365.1	358.5	357.2	355.4
32.5°	354.5	351.9	344.8	342.2	340.4
35°	340.8	336.4	329.4	326.7	324.5
37.5°	325.4	321.4	314.4	311.3	309.1
40°	309.5	306.0	299.0	295.0	293.2
42.5°	294.1	290.6	283.5	279.1	276.5
45°	277.3	274.3	267.6	262.8	261.0
47.5°	261.0	257.9	250.9	246.0	243.4
50°	243.8	241.6	235.5	229.3	227.1
52.5°	227.1	224.0	218.3	213.4	210.3
55°	209.9	207.2	201.9	196.7	194.5
57.5°	192.7	190.5	184.8	179.5	177.7
60°	175.5	173.7	167.6	162.7	161.4
62.5°	158.7	155.6	151.2	146.8	145.1
65°	141.5	138.9	134.5	130.5	128.3
67.5°	123.9	121.7	117.7	114.6	112.9
70°	107.6	105.8	101.9	98.8	97.0
72.5°	90.8	89.1	86.9	83.8	82.5
75°	74.1	73.2	71.0	68.3	69.2
77.5°	59.1	57.3	56.4	55.1	53.8
80°	44.1	43.7	42.8	41.4	40.6
82.5°	30.0	30.0	29.5	27.8	27.8
85°	18.1	17.6	17.2	15.9	15.4
87.5°	7.9	7.1	6.2	4.9	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)