

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: P242358

Luminaire Tested: **S122RDR-S290D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242358  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S290D830-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 935.2 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

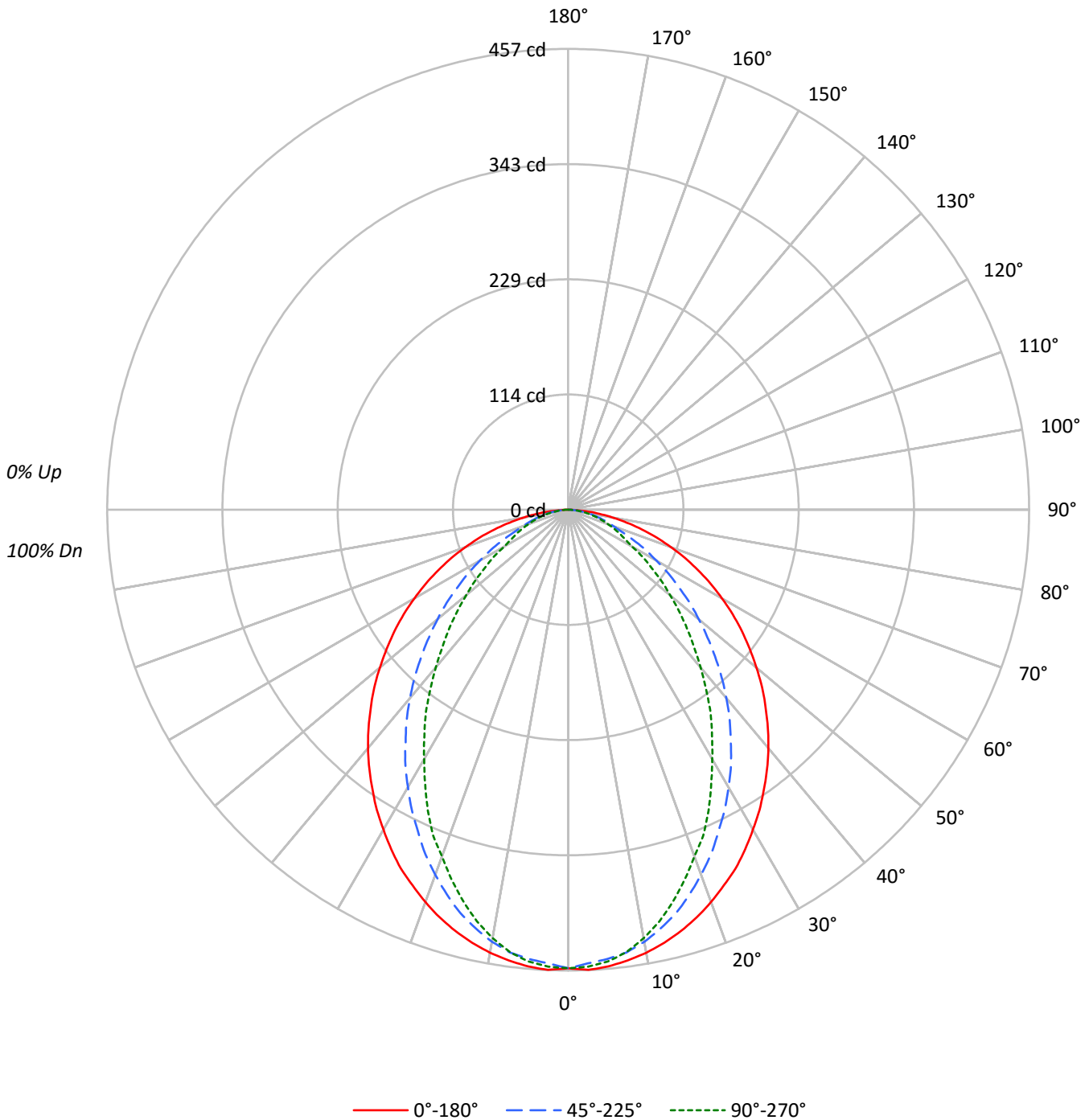
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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

	0°	45°	90°
0°	8661	8661	8661
5°	8694	8553	8600
10°	8628	8414	8342
15°	8529	8164	7929
20°	8392	7808	7417
25°	8251	7404	6919
30°	8057	6988	6282
35°	7866	6536	5723
40°	7676	6067	5075
45°	7451	5544	4490
50°	7219	5011	3915
55°	6984	4440	3361
60°	6709	3840	2792
65°	6400	3227	2542
70°	6026	2656	2339
75°	5571	2421	2178
80°	4925	2172	1985
85°	3868	1705	1705



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.6	4.6
10°-20°	117.0	12.5
20°-30°	164.3	17.6
30°-40°	179.1	19.1
40°-50°	164.6	17.6
50°-60°	129.2	13.8
60°-70°	84.1	9.0
70°-80°	43.3	4.6
80°-90°	11.1	1.2
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°	323.9	34.6
0°-40°	502.9	53.8
0°-60°	796.8	85.2
0°-90°	935.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	935.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	455	455	455	455	455	
5°	455	453	447	451	450	43
15°	432	428	414	406	402	122
25°	393	379	352	335	329	181
35°	338	317	281	255	246	212
45°	277	249	206	176	167	214
55°	210	178	134	109	101	188
65°	142	109	72	58	56	141
75°	76	47	33	30	30	80
85°	18	9	8	8	8	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	454.7	454.7	454.7	454.7	454.7
2.5°	456.8	454.7	450.2	454.3	453.5
5°	454.7	452.7	447.3	451.0	449.8
7.5°	451.0	448.6	442.8	444.5	442.4
10°	446.1	443.2	435.0	433.8	431.3
12.5°	439.9	436.2	425.1	422.6	418.1
15°	432.5	428.0	414.0	406.2	402.1
17.5°	423.9	417.3	400.0	391.0	384.4
20°	414.0	405.8	385.2	374.9	365.9
22.5°	403.3	393.8	370.0	356.0	349.8
25°	392.6	379.4	352.3	335.4	329.2
27.5°	379.8	365.9	335.8	316.5	307.0
30°	366.3	350.6	317.7	296.7	285.6
32.5°	353.1	334.2	300.4	275.7	265.4
35°	338.3	317.3	281.1	255.2	246.1
37.5°	323.9	301.2	263.0	234.6	224.3
40°	308.7	284.0	244.0	214.8	204.1
42.5°	293.0	266.7	225.1	194.7	184.4
45°	276.6	249.0	205.8	176.5	166.7
47.5°	260.9	231.7	187.2	158.0	149.0
50°	243.6	214.4	169.1	140.7	132.1
52.5°	226.8	195.9	151.9	124.7	116.9
55°	210.3	178.2	133.7	109.1	101.2
57.5°	193.4	160.5	117.7	94.7	88.1
60°	176.1	143.2	100.8	79.8	73.3
62.5°	159.3	126.3	86.4	66.7	63.4
65°	142.0	108.6	71.6	57.6	56.4
67.5°	125.5	92.2	57.6	50.6	49.4
70°	108.2	76.1	47.7	43.6	42.0
72.5°	91.8	61.3	39.9	36.6	35.8
75°	75.7	46.9	32.9	30.0	29.6
77.5°	59.7	33.3	25.9	24.3	23.5
80°	44.9	23.9	19.8	18.1	18.1
82.5°	31.3	16.0	13.6	12.8	12.8
85°	17.7	9.1	7.8	7.8	7.8
87.5°	6.6	3.3	3.3	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)