

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: P242382

Luminaire Tested: **S122RDR-S290D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242382  
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-S290D940-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

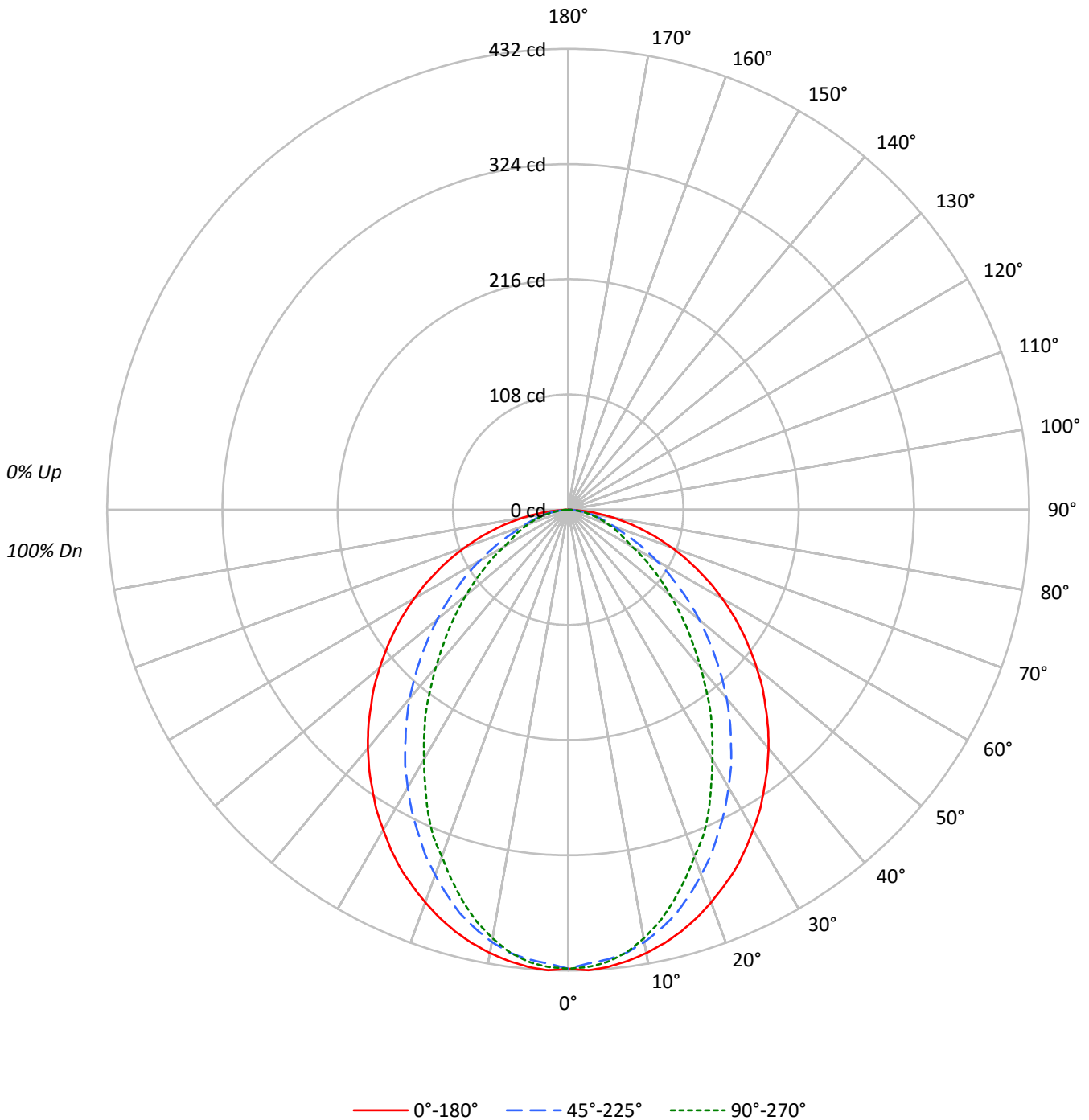
Lumens per Lamp: N/A  
Luminaire Lumens: 884.8 lumens  
Efficiency: N/A  
Efficacy: 76.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</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°	8194	8194	8194
5°	8226	8092	8136
10°	8162	7959	7891
15°	8069	7724	7501
20°	7940	7386	7015
25°	7806	7005	6547
30°	7621	6612	5943
35°	7441	6183	5413
40°	7261	5741	4801
45°	7047	5245	4248
50°	6830	4741	3704
55°	6609	4201	3181
60°	6347	3634	2640
65°	6053	3051	2402
70°	5703	2517	2211
75°	5269	2289	2061
80°	4651	2051	1876
85°	3650	1617	1617



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	4.6
10°-20°	110.7	12.5
20°-30°	155.4	17.6
30°-40°	169.4	19.1
40°-50°	155.7	17.6
50°-60°	122.3	13.8
60°-70°	79.6	9.0
70°-80°	41.0	4.6
80°-90°	10.5	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°	306.4	34.6
0°-40°	475.8	53.8
0°-60°	753.8	85.2
0°-90°	884.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	884.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	430	430	430	430	430	
5°	430	428	423	427	426	41
15°	409	405	392	384	380	115
25°	371	359	333	317	312	171
35°	320	300	266	241	233	200
45°	262	236	195	167	158	202
55°	199	169	126	103	96	178
65°	134	103	68	54	53	133
75°	72	44	31	28	28	76
85°	17	9	7	7	7	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	430.2	430.2	430.2	430.2	430.2
2.5°	432.2	430.2	425.9	429.8	429.1
5°	430.2	428.3	423.2	426.7	425.5
7.5°	426.7	424.4	418.9	420.5	418.5
10°	422.0	419.3	411.5	410.4	408.0
12.5°	416.2	412.7	402.2	399.9	395.6
15°	409.2	404.9	391.7	384.3	380.4
17.5°	401.0	394.8	378.4	369.9	363.6
20°	391.7	383.9	364.4	354.7	346.1
22.5°	381.6	372.6	350.0	336.8	330.9
25°	371.4	359.0	333.3	317.3	311.5
27.5°	359.4	346.1	317.7	299.4	290.4
30°	346.5	331.7	300.6	280.7	270.2
32.5°	334.1	316.1	284.2	260.9	251.1
35°	320.0	300.2	265.9	241.4	232.8
37.5°	306.4	285.0	248.8	221.9	212.2
40°	292.0	268.6	230.9	203.2	193.1
42.5°	277.2	252.3	213.0	184.2	174.4
45°	261.6	235.6	194.7	167.0	157.7
47.5°	246.8	219.2	177.2	149.5	140.9
50°	230.5	202.8	160.0	133.2	125.0
52.5°	214.5	185.3	143.7	118.0	110.6
55°	199.0	168.6	126.5	103.2	95.8
57.5°	183.0	151.8	111.4	89.5	83.3
60°	166.6	135.5	95.4	75.5	69.3
62.5°	150.7	119.5	81.8	63.1	60.0
65°	134.3	102.8	67.7	54.5	53.3
67.5°	118.7	87.2	54.5	47.9	46.7
70°	102.4	72.0	45.2	41.3	39.7
72.5°	86.8	58.0	37.8	34.7	33.9
75°	71.6	44.4	31.1	28.4	28.0
77.5°	56.5	31.5	24.5	23.0	22.2
80°	42.4	22.6	18.7	17.1	17.1
82.5°	29.6	15.2	12.8	12.1	12.1
85°	16.7	8.6	7.4	7.4	7.4
87.5°	6.2	3.1	3.1	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)