

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: P243227

Luminaire Tested: **S122RDR-H290D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243227  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H290D840-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1004.9 lumens  
Efficiency: N/A  
Efficacy: 89.7 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

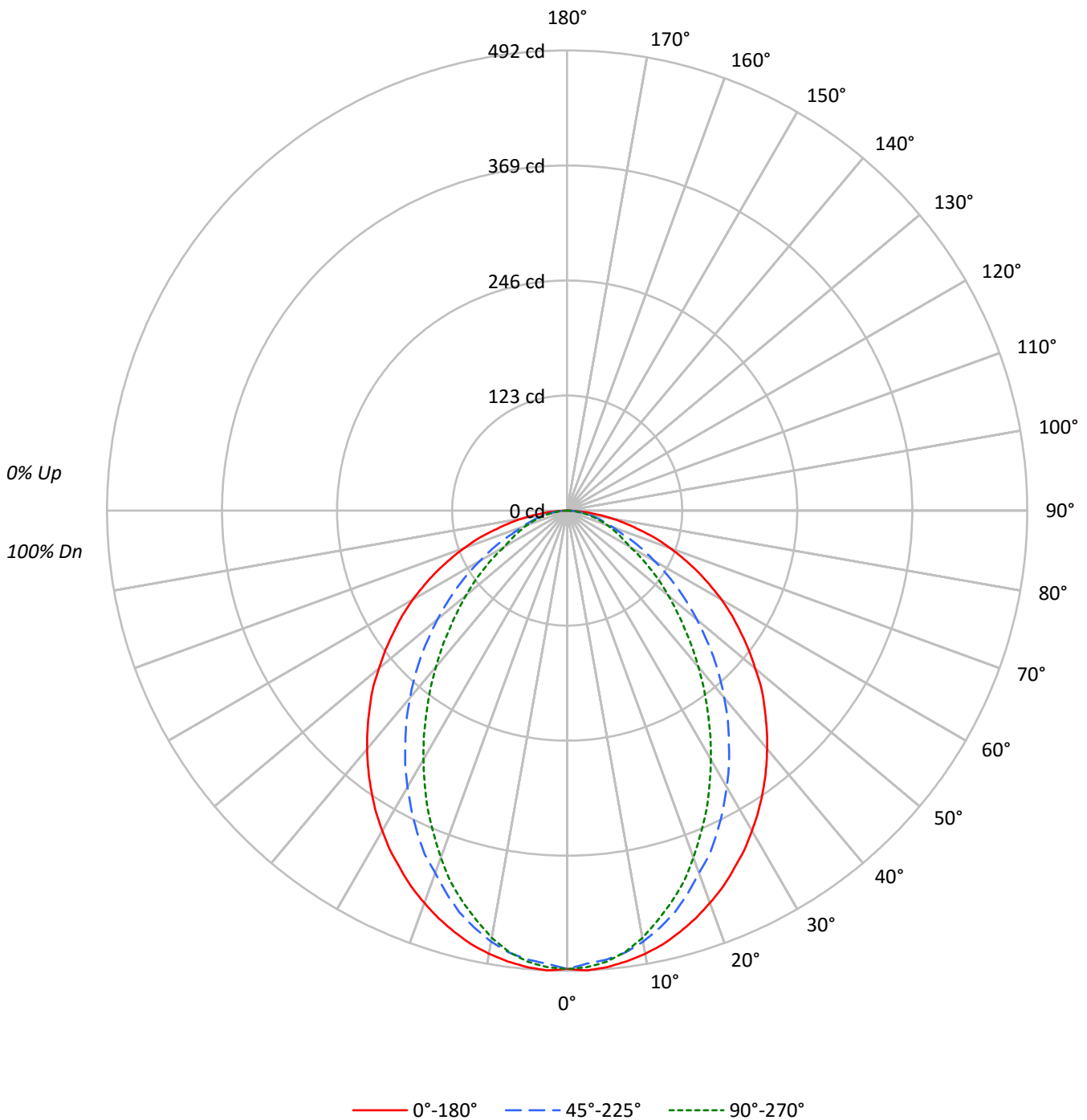
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	77	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°	9333	9333	9333
5°	9369	9214	9256
10°	9305	9052	8971
15°	9195	8769	8529
20°	9049	8355	8005
25°	8875	7978	7411
30°	8694	7504	6759
35°	8494	7008	6085
40°	8273	6497	5423
45°	8041	5956	4771
50°	7779	5361	4184
55°	7512	4772	3606
60°	7265	4107	2949
65°	6936	3466	2727
70°	6522	2874	2545
75°	5939	2613	2333
80°	5331	2314	2084
85°	4437	1945	1858



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.9	4.6
10°-20°	125.8	12.5
20°-30°	176.4	17.6
30°-40°	192.2	19.1
40°-50°	176.6	17.6
50°-60°	138.6	13.8
60°-70°	90.4	9.0
70°-80°	46.8	4.7
80°-90°	12.1	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°	348.1	34.6
0°-40°	540.3	53.8
0°-60°	855.6	85.1
0°-90°	1004.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1004.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	490	490	490	490	490	
5°	490	487	482	485	484	46
15°	466	461	445	436	432	131
25°	422	408	380	361	353	195
35°	365	341	301	274	262	228
45°	298	268	221	189	177	230
55°	226	192	144	117	109	203
65°	154	117	77	63	60	152
75°	81	50	36	33	32	86
85°	20	10	9	8	8	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	490.0	490.0	490.0	490.0	490.0
2.5°	492.1	490.0	484.9	489.6	488.7
5°	490.0	487.4	481.9	485.3	484.1
7.5°	486.2	483.6	476.5	478.1	476.0
10°	481.1	477.7	468.0	466.3	463.8
12.5°	474.8	470.1	457.0	451.9	448.5
15°	466.3	460.8	444.7	435.9	432.5
17.5°	457.0	449.0	429.1	419.0	415.6
20°	446.4	437.1	412.2	401.6	394.9
22.5°	435.4	423.6	397.8	381.3	373.3
25°	422.3	407.5	379.6	361.0	352.6
27.5°	409.7	392.3	360.6	339.1	329.8
30°	395.3	376.3	341.2	316.2	307.3
32.5°	380.9	358.9	322.1	295.1	284.9
35°	365.3	341.2	301.4	273.5	261.7
37.5°	349.2	324.3	282.4	251.5	240.1
40°	332.7	304.8	261.3	229.1	218.1
42.5°	315.8	287.5	241.4	208.4	197.9
45°	298.5	268.0	221.1	189.0	177.1
47.5°	282.0	249.0	200.4	169.9	158.5
50°	262.5	230.0	180.9	150.1	141.2
52.5°	244.8	211.0	161.9	132.3	124.7
55°	226.2	192.4	143.7	116.7	108.6
57.5°	208.8	172.9	125.6	101.0	93.4
60°	190.7	154.3	107.8	85.4	77.4
62.5°	171.6	135.3	92.2	71.0	68.5
65°	153.9	116.7	76.9	62.6	60.5
67.5°	134.9	99.3	61.3	55.0	52.8
70°	117.1	82.4	51.6	46.9	45.7
72.5°	99.8	66.4	43.5	39.7	38.5
75°	80.7	50.3	35.5	32.6	31.7
77.5°	64.3	35.5	28.3	26.2	25.4
80°	48.6	25.8	21.1	19.9	19.0
82.5°	33.4	17.3	14.8	14.0	13.5
85°	20.3	9.7	8.9	8.5	8.5
87.5°	8.0	3.8	3.8	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)