

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057890

Luminaire Tested: S122RDR-S290D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S290D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

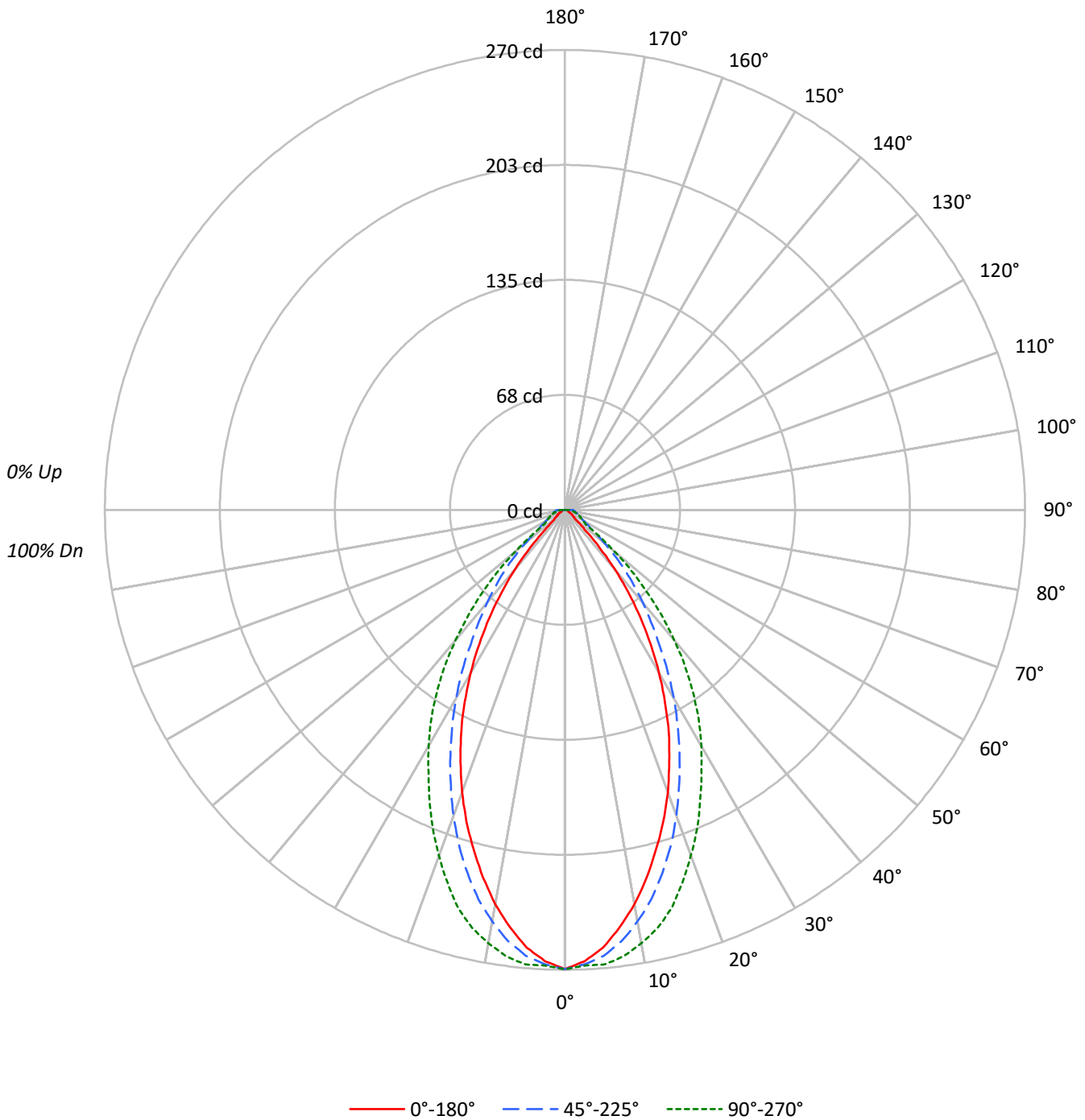
Lumens per Lamp: N/A
Luminaire Lumens: 293.4 lumens
Efficiency: N/A
Efficacy: 23.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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: 24 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	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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4975	4975	4975
5°	4777	4866	4960
10°	4405	4598	4840
15°	3947	4218	4623
20°	3464	3753	4243
25°	2934	3239	3828
30°	2352	2721	3409
35°	1739	2176	2953
40°	1091	1703	2399
45°	428	1284	1777
50°	210	867	1091
55°	167	569	486
60°	129	461	447
65°	96	432	432
70°	119	442	442
75°	121	492	463
80°	181	638	499
85°	360	1101	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 1988 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.6	8.4
10°-20°	62.2	21.2
20°-30°	74.5	25.4
30°-40°	62.7	21.4
40°-50°	35.7	12.2
50°-60°	14.1	4.8
60°-70°	8.9	3.0
70°-80°	6.6	2.2
80°-90°	4.2	1.4
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°	161.3	55.0
0°-40°	224.0	76.3
0°-60°	273.7	93.3
0°-90°	293.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	293.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	270	270	270	270	270	
5°	258	264	263	266	268	24
15°	207	214	221	234	242	58
25°	144	150	159	176	188	66
35°	77	84	97	117	131	48
45°	16	29	49	62	68	15
55°	5	11	18	18	15	5
65°	2	10	10	10	10	2
75°	2	7	7	6	6	2
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	269.6	269.6	269.6	269.6	269.6
2.5°	265.2	270.0	267.0	267.4	267.8
5°	257.9	263.5	262.7	265.7	267.8
7.5°	247.1	253.2	255.3	260.5	264.4
10°	235.1	242.0	245.4	253.6	258.3
12.5°	221.3	229.0	234.2	244.5	251.4
15°	206.6	213.9	220.8	233.8	242.0
17.5°	191.9	199.3	206.6	220.8	229.4
20°	176.4	183.3	191.1	206.2	216.1
22.5°	160.0	167.3	175.1	190.6	202.7
25°	144.1	150.5	159.1	175.5	188.0
27.5°	127.2	133.7	143.2	160.0	173.4
30°	110.4	116.9	127.7	144.9	160.0
32.5°	93.6	100.5	112.1	131.1	146.2
35°	77.2	84.1	96.6	117.3	131.1
37.5°	61.2	69.0	82.8	103.1	116.0
40°	45.3	54.3	70.7	88.8	99.6
42.5°	30.2	41.4	59.5	74.6	83.7
45°	16.4	28.9	49.2	61.7	68.1
47.5°	9.1	18.5	39.2	49.2	53.0
50°	7.3	12.9	30.2	37.5	38.0
52.5°	6.0	11.6	22.4	26.7	24.6
55°	5.2	11.2	17.7	18.1	15.1
57.5°	4.3	10.8	14.7	12.9	12.9
60°	3.5	10.8	12.5	11.6	12.1
62.5°	2.6	10.8	11.2	10.4	10.8
65°	2.2	9.9	9.9	9.5	9.9
67.5°	2.2	9.1	9.1	8.6	9.1
70°	2.2	8.6	8.2	8.2	8.2
72.5°	1.7	7.8	7.8	7.3	7.3
75°	1.7	6.9	6.9	6.5	6.5
77.5°	1.7	6.5	6.5	6.0	5.6
80°	1.7	5.6	6.0	5.6	4.7
82.5°	1.7	5.2	5.6	5.2	3.9
85°	1.7	4.7	5.2	4.7	3.5
87.5°	1.3	4.7	4.7	3.9	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)