

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S122RDRP-S290D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S122RDRP-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

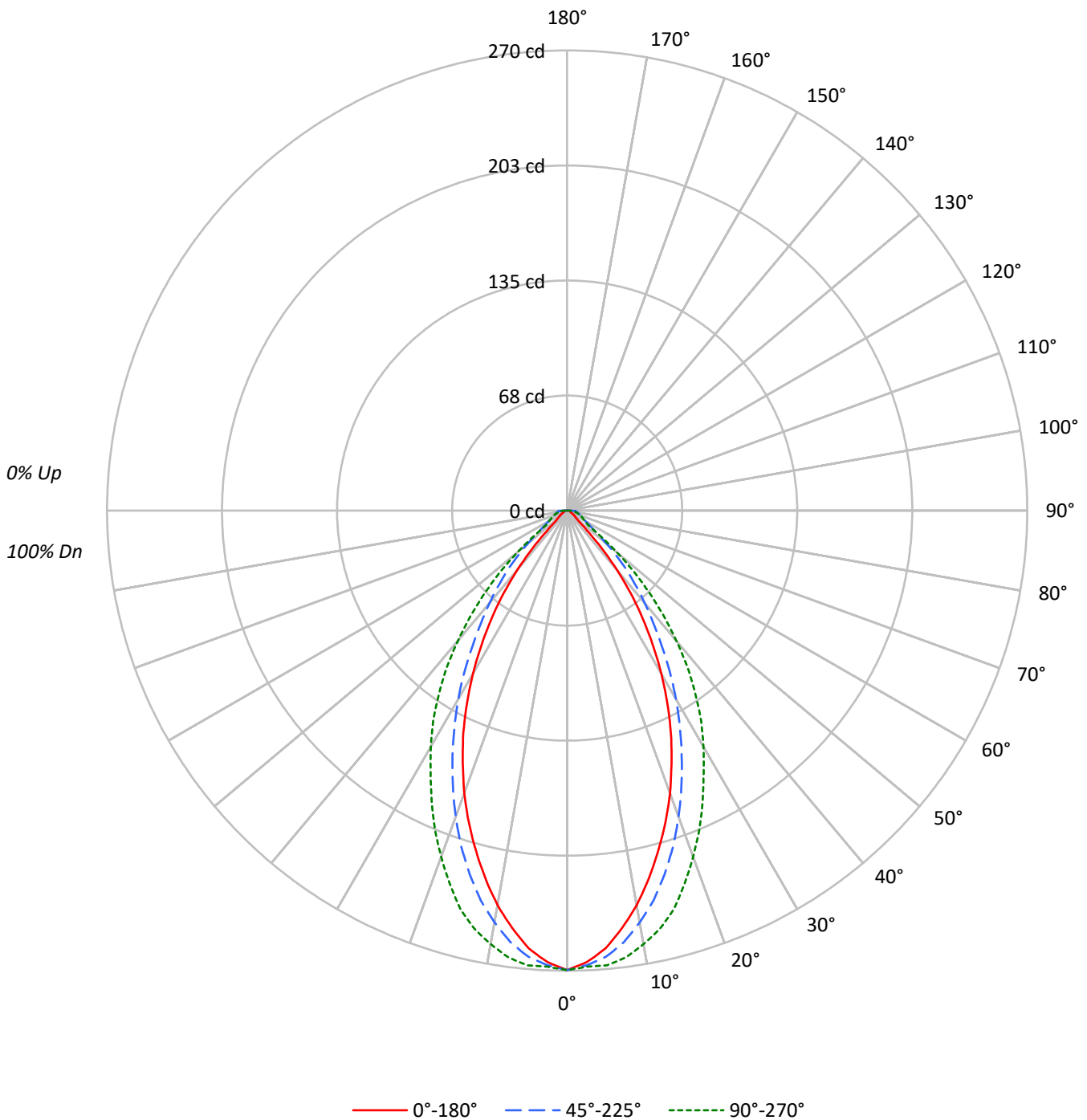
Lumens per Lamp: N/A
Luminaire Lumens: 293.4 lumens
Efficiency: N/A
Efficacy: 23.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	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

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	3.27	4.50	3.64	4.81	5.12	5.27	6.49	5.63	6.80	7.12
	3H	4.83	5.91	5.21	6.24	6.61	7.25	8.34	7.63	8.67	9.04
	4H	5.38	6.39	5.78	6.74	7.13	8.17	9.19	8.58	9.54	9.92
	6H	5.93	6.86	6.34	7.23	7.62	9.05	9.98	9.47	10.35	10.75
	8H	6.21	7.09	6.65	7.49	7.89	9.46	10.34	9.89	10.73	11.13
	12H	6.57	7.41	7.00	7.79	8.22	9.91	10.75	10.34	11.13	11.56
4H	2H	4.45	5.46	4.86	5.82	6.20	5.89	6.90	6.29	7.25	7.64
	3H	6.66	7.50	7.08	7.90	8.30	8.15	8.98	8.56	9.39	9.79
	4H	7.71	8.46	8.15	8.88	9.32	9.23	9.97	9.66	10.39	10.84
	6H	8.60	9.25	9.07	9.70	10.17	10.33	10.97	10.79	11.42	11.89
	8H	8.99	9.59	9.46	10.04	10.51	10.85	11.46	11.32	11.91	12.38
	12H	9.40	9.93	9.89	10.42	10.89	11.44	11.97	11.93	12.46	12.93
8H	4H	8.51	9.12	8.98	9.57	10.04	9.72	10.32	10.19	10.77	11.24
	6H	9.89	10.39	10.39	10.88	11.37	11.11	11.60	11.61	12.10	12.58
	8H	10.61	11.06	11.13	11.57	12.07	11.85	12.30	12.38	12.81	13.31
	12H	11.35	11.74	11.87	12.24	12.81	12.69	13.08	13.20	13.58	14.15
12H	4H	8.68	9.21	9.16	9.69	10.17	9.82	10.35	10.31	10.84	11.31
	6H	10.22	10.67	10.74	11.18	11.68	11.32	11.77	11.85	12.29	12.78
	8H	11.14	11.53	11.65	12.03	12.60	12.22	12.61	12.73	13.10	13.68