

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: P1057889

Luminaire Tested: S122RDRP-S290D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057889
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
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-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

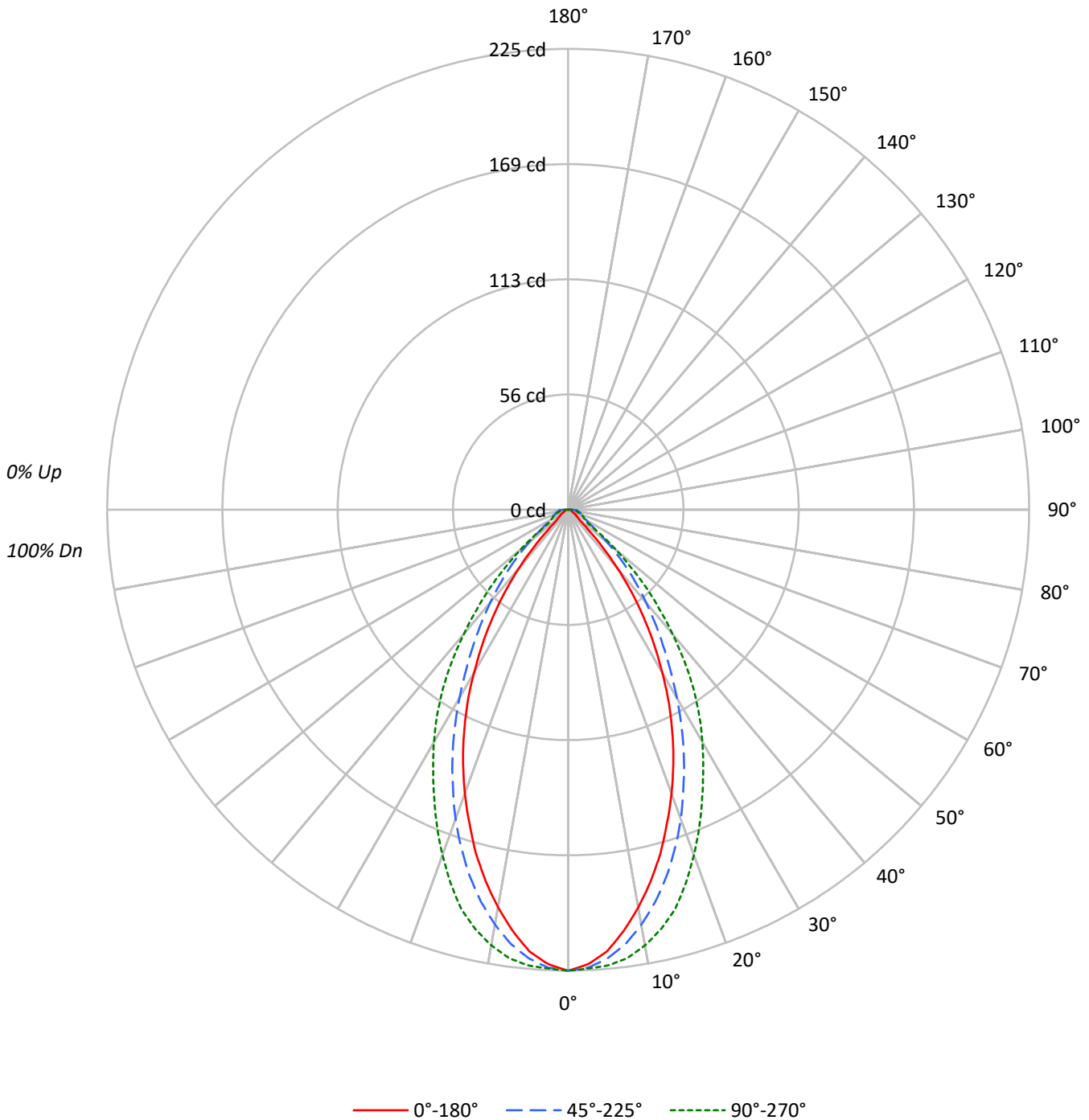
Lumens per Lamp: N/A
Luminaire Lumens: 242.6 lumens
Efficiency: N/A
Efficacy: 19.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57					57			
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48					48			
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4154	4154	4154
5°	4010	4073	4138
10°	3693	3854	4047
15°	3320	3542	3855
20°	2896	3158	3523
25°	2449	2722	3152
30°	1956	2261	2793
35°	1446	1816	2399
40°	913	1424	1910
45°	360	1070	1407
50°	187	718	867
55°	151	473	389
60°	111	380	351
65°	96	358	358
70°	92	372	351
75°	121	428	371
80°	181	553	414
85°	275	910	550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1819 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.6	8.5
10°-20°	52.0	21.4
20°-30°	61.8	25.5
30°-40°	51.4	21.2
40°-50°	28.7	11.8
50°-60°	11.6	4.8
60°-70°	7.4	3.1
70°-80°	5.6	2.3
80°-90°	3.5	1.5
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°	134.4	55.4
0°-40°	185.8	76.6
0°-60°	226.1	93.2
0°-90°	242.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	242.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	225	225	225	225	225	
5°	216	220	220	222	223	20
15°	174	179	185	195	202	48
25°	120	125	134	144	155	55
35°	64	70	81	94	106	40
45°	14	23	41	48	54	13
55°	5	10	15	14	12	4
65°	2	9	8	8	8	2
75°	2	6	6	6	5	2
85°	1	4	4	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	225.1	225.1	225.1	225.1	225.1
2.5°	222.1	225.5	223.8	223.8	224.2
5°	216.5	220.3	219.9	221.6	223.4
7.5°	207.4	211.7	213.9	217.8	220.8
10°	197.1	201.8	205.7	211.7	216.0
12.5°	185.8	190.6	196.2	204.0	209.6
15°	173.8	178.9	185.4	194.9	201.8
17.5°	160.4	166.0	173.3	183.7	191.0
20°	147.5	153.1	160.8	171.2	179.4
22.5°	134.1	138.8	147.0	157.4	167.3
25°	120.3	125.0	133.7	144.0	154.8
27.5°	106.5	111.2	119.9	130.7	142.7
30°	91.8	97.0	106.1	118.1	131.1
32.5°	78.0	83.2	92.7	106.1	119.0
35°	64.2	70.3	80.6	94.0	106.5
37.5°	50.9	57.8	69.4	81.9	93.1
40°	37.9	45.3	59.1	69.9	79.3
42.5°	25.0	33.6	49.6	58.6	66.0
45°	13.8	23.3	41.0	47.9	53.9
47.5°	7.8	15.1	32.3	37.9	41.4
50°	6.5	11.2	25.0	28.9	30.2
52.5°	5.2	10.3	19.0	21.1	20.3
55°	4.7	9.9	14.7	14.2	12.1
57.5°	3.9	9.9	11.6	10.3	10.3
60°	3.0	9.5	10.3	9.1	9.5
62.5°	2.6	9.1	9.5	8.6	8.6
65°	2.2	8.6	8.2	7.8	8.2
67.5°	1.7	7.8	7.8	7.3	7.3
70°	1.7	7.3	6.9	6.5	6.5
72.5°	1.7	6.5	6.5	6.0	6.0
75°	1.7	6.0	6.0	5.6	5.2
77.5°	1.7	5.2	5.6	5.2	4.7
80°	1.7	4.7	5.2	4.7	3.9
82.5°	1.7	4.3	4.7	4.3	3.4
85°	1.3	3.9	4.3	3.9	2.6
87.5°	1.3	3.9	4.3	3.4	2.2
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	3.31	4.53	3.67	4.84	5.15	4.36	5.58	4.72	5.89	6.21
	3H	4.64	5.72	5.02	6.05	6.42	6.40	7.48	6.78	7.82	8.18
	4H	5.20	6.21	5.61	6.57	6.95	7.36	8.37	7.76	8.72	9.11
	6H	5.76	6.69	6.18	7.07	7.46	8.31	9.23	8.72	9.61	10.00
	8H	6.08	6.96	6.52	7.36	7.76	8.75	9.63	9.18	10.02	10.43
	12H	6.39	7.23	6.83	7.62	8.05	9.17	10.01	9.61	10.40	10.83
4H	2H	4.27	5.28	4.68	5.63	6.02	5.04	6.06	5.45	6.41	6.79
	3H	6.30	7.13	6.71	7.54	7.94	7.34	8.17	7.75	8.58	8.98
	4H	7.37	8.12	7.81	8.54	8.98	8.49	9.24	8.92	9.66	10.10
	6H	8.24	8.89	8.70	9.33	9.80	9.66	10.30	10.12	10.75	11.22
	8H	8.64	9.25	9.12	9.70	10.17	10.21	10.82	10.68	11.26	11.74
	12H	9.03	9.56	9.51	10.05	10.52	10.76	11.29	11.24	11.78	12.25
8H	4H	8.14	8.75	8.62	9.20	9.67	9.04	9.65	9.51	10.09	10.57
	6H	9.48	9.98	9.98	10.47	10.96	10.49	10.99	10.99	11.48	11.97
	8H	10.19	10.64	10.71	11.15	11.65	11.25	11.69	11.77	12.21	12.70
	12H	10.89	11.28	11.41	11.78	12.35	12.04	12.43	12.56	12.93	13.50
12H	4H	8.30	8.83	8.79	9.32	9.79	9.15	9.68	9.63	10.17	10.64
	6H	9.80	10.25	10.32	10.76	11.26	10.72	11.16	11.24	11.68	12.17
	8H	10.70	11.09	11.21	11.59	12.16	11.62	12.01	12.13	12.51	13.08