

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: P1057904

Luminaire Tested: S122RDRP-S290D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057904
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D850-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

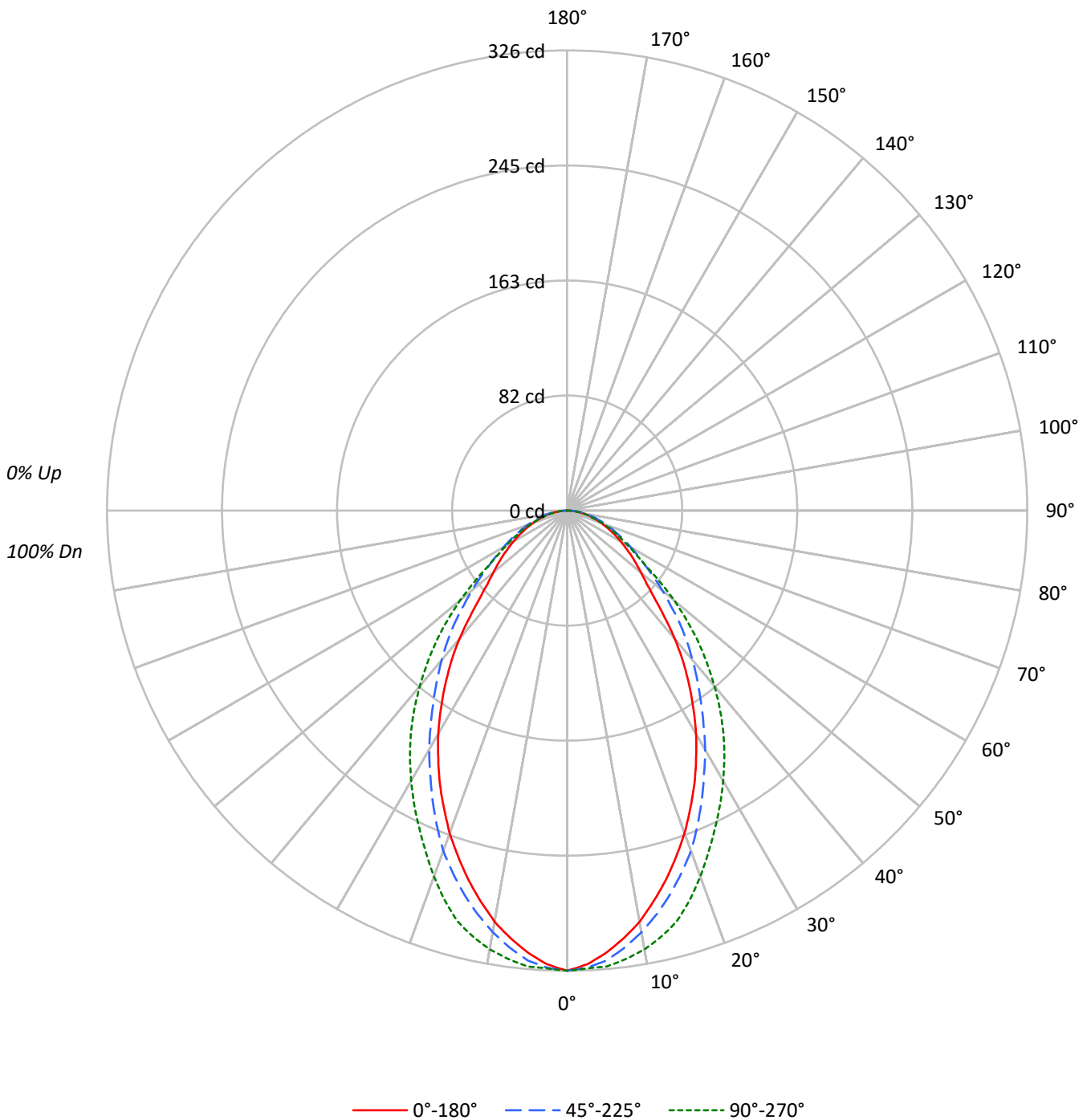
Lumens per Lamp: N/A
Luminaire Lumens: 530.9 lumens
Efficiency: N/A
Efficacy: 42.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6016	6016	6016
5°	5829	5925	6003
10°	5542	5683	5913
15°	5171	5380	5750
20°	4776	5037	5418
25°	4345	4595	5049
30°	3893	4163	4709
35°	3390	3719	4350
40°	2862	3329	3909
45°	2273	2938	3421
50°	1955	2526	2839
55°	1782	2162	2178
60°	1624	1923	1853
65°	1489	1733	1633
70°	1381	1608	1457
75°	1283	1519	1283
80°	1211	1456	1158
85°	1207	1503	995

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3421 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	5.7
10°-20°	79.6	15.0
20°-30°	104.7	19.7
30°-40°	105.3	19.8
40°-50°	85.3	16.1
50°-60°	58.8	11.1
60°-70°	38.5	7.2
70°-80°	21.4	4.0
80°-90°	7.3	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°	214.4	40.4
0°-40°	319.6	60.2
0°-60°	463.8	87.4
0°-90°	530.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	530.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	326	326	326	326	326	
5°	315	321	320	321	324	29
15°	271	277	282	292	301	76
25°	213	219	226	236	248	98
35°	150	158	165	180	193	94
45°	87	97	113	123	131	69
55°	55	62	67	69	68	50
65°	34	41	40	38	37	34
75°	18	22	21	19	18	19
85°	6	8	7	6	5	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	326.0	326.0	326.0	326.0	326.0
2.5°	321.8	327.5	324.1	324.1	324.6
5°	314.7	320.8	319.9	321.3	324.1
7.5°	305.7	312.3	312.3	316.6	320.4
10°	295.8	302.4	303.3	309.9	315.6
12.5°	283.4	290.1	292.9	301.4	309.0
15°	270.7	277.3	281.6	292.0	301.0
17.5°	256.9	263.6	269.3	280.1	289.1
20°	243.2	249.4	256.5	265.9	275.9
22.5°	228.1	234.7	241.3	250.3	261.7
25°	213.4	219.1	225.7	235.7	248.0
27.5°	197.8	204.0	210.1	221.9	234.7
30°	182.7	188.8	195.4	207.7	221.0
32.5°	166.6	173.2	179.8	193.5	207.3
35°	150.5	157.6	165.1	179.8	193.1
37.5°	134.9	142.4	151.4	166.6	177.9
40°	118.8	126.8	138.2	151.4	162.3
42.5°	101.7	111.7	125.4	136.8	146.7
45°	87.1	97.0	112.6	122.6	131.1
47.5°	76.2	84.2	99.4	107.9	115.0
50°	68.1	74.3	88.0	94.2	98.9
52.5°	61.5	67.7	77.1	81.4	82.8
55°	55.4	61.5	67.2	68.6	67.7
57.5°	49.2	55.8	59.2	57.7	57.7
60°	44.0	51.1	52.1	50.2	50.2
62.5°	38.8	45.9	45.9	43.5	43.5
65°	34.1	40.7	39.7	37.9	37.4
67.5°	29.8	36.0	34.5	32.7	32.2
70°	25.6	31.2	29.8	27.4	27.0
72.5°	21.8	27.0	25.1	23.2	22.2
75°	18.0	22.2	21.3	18.9	18.0
77.5°	14.7	18.0	17.0	15.1	14.2
80°	11.4	14.2	13.7	11.8	10.9
82.5°	8.5	10.9	10.4	9.0	7.6
85°	5.7	7.6	7.1	6.2	4.7
87.5°	2.8	5.2	4.7	4.3	2.4
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	12.96	14.40	13.32	14.71	15.03	13.32	14.76	13.69	15.07	15.39
	3H	14.51	15.80	14.89	16.12	16.49	14.67	15.96	15.05	16.29	16.65
	4H	15.08	16.29	15.48	16.64	17.02	15.15	16.36	15.55	16.71	17.09
	6H	15.51	16.63	15.92	16.99	17.39	15.51	16.62	15.92	16.99	17.38
	8H	15.66	16.72	16.09	17.11	17.52	15.62	16.68	16.05	17.07	17.47
	12H	15.78	16.79	16.21	17.18	17.61	15.70	16.71	16.13	17.09	17.52
4H	2H	13.55	14.75	13.95	15.10	15.48	13.83	15.04	14.23	15.39	15.77
	3H	15.37	16.37	15.78	16.77	17.17	15.41	16.41	15.82	16.81	17.21
	4H	16.12	17.02	16.55	17.43	17.87	16.01	16.91	16.45	17.33	17.77
	6H	16.71	17.49	17.16	17.93	18.39	16.49	17.28	16.95	17.72	18.18
	8H	16.92	17.65	17.38	18.09	18.56	16.66	17.39	17.12	17.84	18.30
	12H	17.08	17.74	17.57	18.22	18.69	16.78	17.43	17.26	17.91	18.38
8H	4H	16.40	17.13	16.87	17.58	18.05	16.31	17.05	16.78	17.49	17.96
	6H	17.16	17.76	17.66	18.26	18.74	16.93	17.53	17.43	18.03	18.51
	8H	17.48	18.03	18.00	18.54	19.03	17.18	17.72	17.70	18.23	18.72
	12H	17.77	18.25	18.28	18.74	19.31	17.39	17.87	17.90	18.36	18.93
12H	4H	16.42	17.07	16.90	17.55	18.02	16.35	17.00	16.83	17.48	17.95
	6H	17.22	17.76	17.74	18.27	18.76	17.01	17.55	17.52	18.06	18.55
	8H	17.62	18.10	18.13	18.59	19.16	17.33	17.81	17.84	18.30	18.87