

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: P1057880

Luminaire Tested: S122RDRP-S290D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057880
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-S290D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

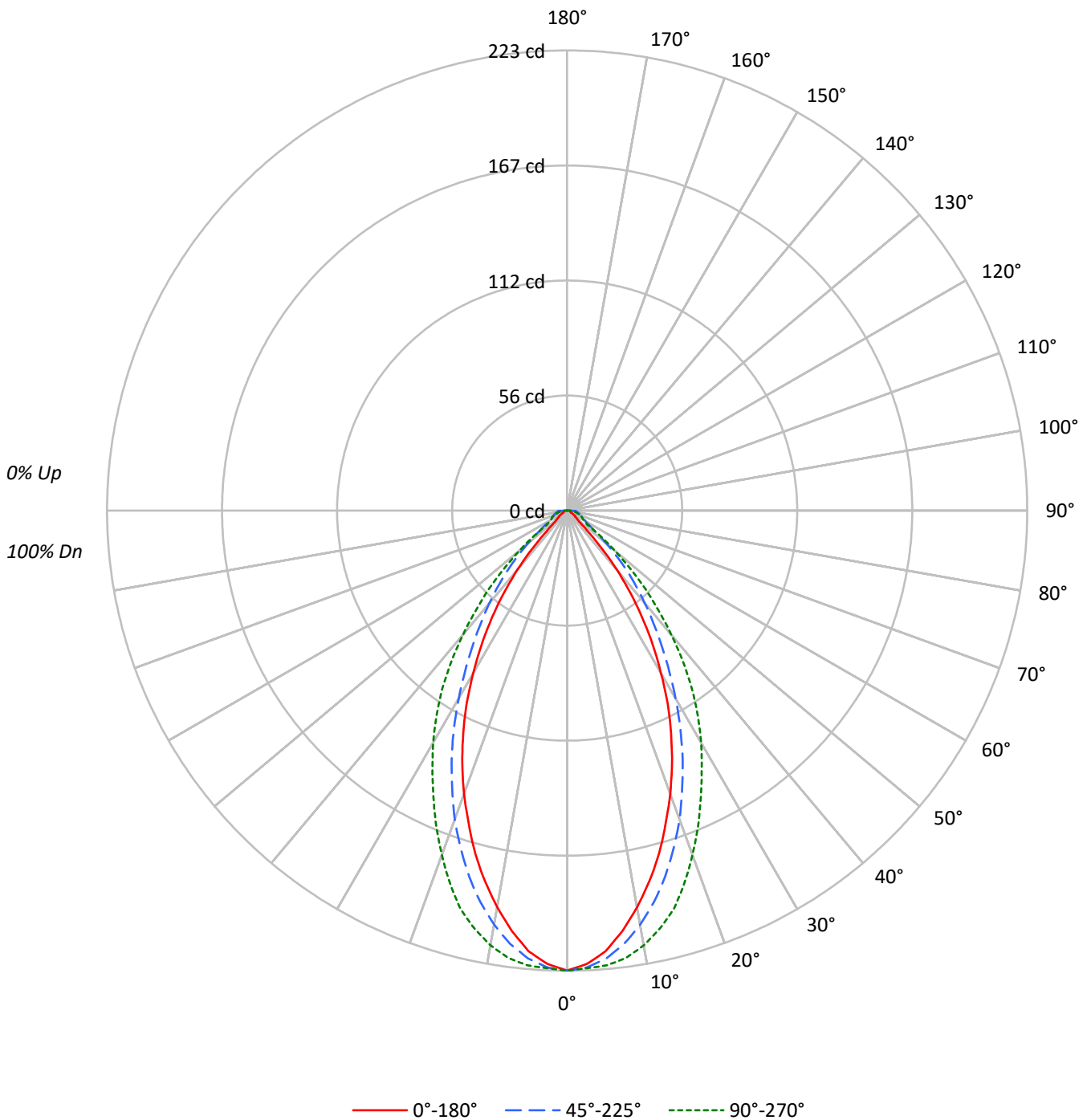
Lumens per Lamp: N/A
Luminaire Lumens: 240.3 lumens
Efficiency: N/A
Efficacy: 19.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (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	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°	4113	4113	4113
5°	3969	4034	4097
10°	3656	3817	4008
15°	3288	3507	3817
20°	2867	3128	3487
25°	2425	2696	3121
30°	1937	2237	2766
35°	1433	1798	2377
40°	906	1409	1893
45°	358	1059	1394
50°	184	712	858
55°	151	466	386
60°	111	376	347
65°	92	354	354
70°	92	367	345
75°	121	428	364
80°	181	542	404
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°	20.4	8.5
10°-20°	51.5	21.4
20°-30°	61.2	25.5
30°-40°	50.9	21.2
40°-50°	28.4	11.8
50°-60°	11.5	4.8
60°-70°	7.3	3.1
70°-80°	5.5	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°	133.1	55.4
0°-40°	184.0	76.6
0°-60°	223.9	93.2
0°-90°	240.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	240.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	223	223	223	223	223	
5°	214	218	218	220	221	20
15°	172	177	184	193	200	48
25°	119	124	132	143	153	54
35°	64	70	80	93	106	39
45°	14	23	41	47	53	13
55°	5	10	14	14	12	4
65°	2	8	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°	222.9	222.9	222.9	222.9	222.9
2.5°	219.9	223.3	221.6	221.6	222.0
5°	214.3	218.2	217.8	219.5	221.2
7.5°	205.4	209.7	211.8	215.6	218.6
10°	195.1	199.8	203.7	209.7	213.9
12.5°	184.0	188.7	194.3	202.0	207.5
15°	172.1	177.2	183.6	193.0	199.8
17.5°	158.8	164.4	171.6	181.9	189.2
20°	146.0	151.6	159.3	169.5	177.6
22.5°	132.8	137.5	145.6	155.9	165.7
25°	119.1	123.8	132.4	142.6	153.3
27.5°	105.5	110.2	118.7	129.4	141.3
30°	90.9	96.1	105.0	117.0	129.8
32.5°	77.3	82.4	91.8	105.0	117.8
35°	63.6	69.6	79.8	93.1	105.5
37.5°	50.4	57.2	68.7	81.1	92.2
40°	37.6	44.8	58.5	69.2	78.6
42.5°	24.8	33.3	49.1	58.1	65.3
45°	13.7	23.1	40.6	47.4	53.4
47.5°	7.7	14.9	32.0	37.6	41.0
50°	6.4	11.1	24.8	28.6	29.9
52.5°	5.1	10.2	18.8	20.9	20.1
55°	4.7	9.8	14.5	14.1	12.0
57.5°	3.8	9.8	11.5	10.2	10.2
60°	3.0	9.4	10.2	9.0	9.4
62.5°	2.6	9.0	9.4	8.5	8.5
65°	2.1	8.5	8.1	7.7	8.1
67.5°	1.7	7.7	7.7	7.3	7.3
70°	1.7	7.3	6.8	6.4	6.4
72.5°	1.7	6.4	6.4	6.0	6.0
75°	1.7	6.0	6.0	5.6	5.1
77.5°	1.7	5.1	5.6	5.1	4.7
80°	1.7	4.7	5.1	4.7	3.8
82.5°	1.7	4.3	4.7	4.3	3.4
85°	1.3	3.8	4.3	3.8	2.6
87.5°	1.3	3.8	4.3	3.4	2.1
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	3.26	4.48	3.63	4.79	5.11	4.32	5.54	4.69	5.86	6.17
	3H	4.60	5.69	4.99	6.02	6.39	6.38	7.46	6.76	7.79	8.16
	4H	5.18	6.19	5.58	6.54	6.93	7.34	8.35	7.74	8.70	9.08
	6H	5.74	6.67	6.16	7.04	7.44	8.28	9.21	8.69	9.58	9.97
	8H	6.07	6.95	6.50	7.34	7.75	8.72	9.60	9.16	10.00	10.40
	12H	6.38	7.22	6.81	7.60	8.03	9.15	9.99	9.59	10.38	10.81
4H	2H	4.23	5.24	4.63	5.59	5.97	5.01	6.02	5.41	6.37	6.75
	3H	6.27	7.10	6.68	7.50	7.91	7.31	8.14	7.72	8.55	8.95
	4H	7.35	8.10	7.79	8.52	8.96	8.47	9.21	8.90	9.64	10.08
	6H	8.22	8.87	8.68	9.31	9.78	9.63	10.28	10.09	10.72	11.19
	8H	8.63	9.24	9.10	9.69	10.16	10.19	10.79	10.66	11.24	11.71
	12H	9.01	9.55	9.50	10.03	10.51	10.74	11.27	11.22	11.76	12.23
8H	4H	8.13	8.73	8.60	9.18	9.65	9.02	9.63	9.49	10.07	10.55
	6H	9.46	9.96	9.97	10.46	10.94	10.47	10.96	10.97	11.46	11.94
	8H	10.18	10.63	10.71	11.14	11.64	11.23	11.68	11.76	12.19	12.69
	12H	10.87	11.26	11.39	11.76	12.33	12.02	12.41	12.54	12.91	13.48
12H	4H	8.28	8.82	8.77	9.30	9.78	9.13	9.66	9.61	10.15	10.62
	6H	9.78	10.23	10.31	10.75	11.24	10.69	11.14	11.22	11.66	12.15
	8H	10.69	11.08	11.21	11.58	12.15	11.60	12.00	12.12	12.49	13.06