

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: P1057881

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057881
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-S290D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

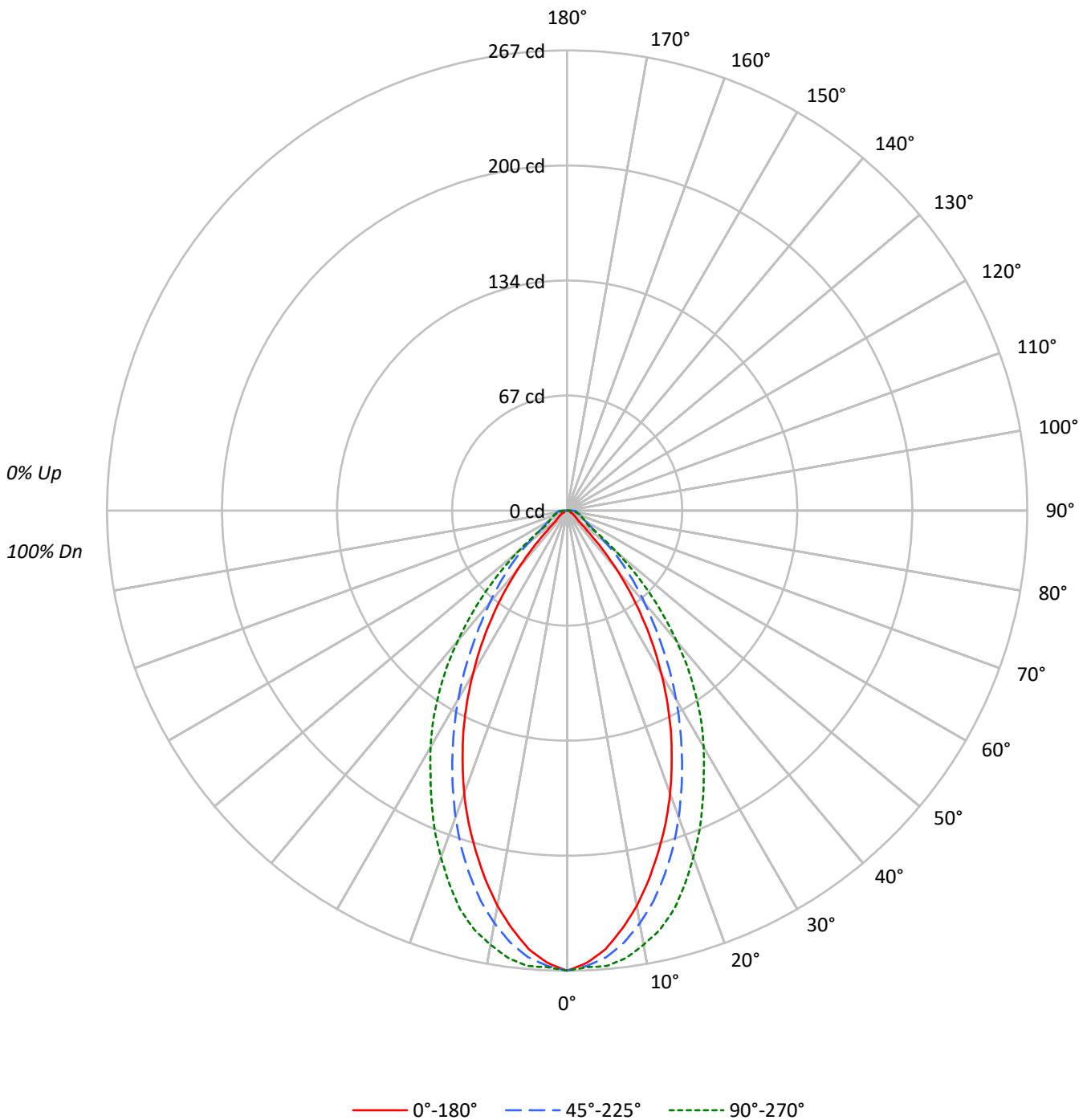
Lumens per Lamp: N/A
Luminaire Lumens: 290.5 lumens
Efficiency: N/A
Efficacy: 23.2 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	76	81	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	67	64	71	66	63	61													61															
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56													56															
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52													52															
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48													48															
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45													45															
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42													42															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4925	4925	4925
5°	4731	4818	4912
10°	4362	4553	4793
15°	3909	4178	4577
20°	3431	3715	4202
25°	2903	3209	3791
30°	2329	2693	3375
35°	1721	2156	2924
40°	1079	1686	2377
45°	423	1271	1761
50°	210	858	1079
55°	164	563	479
60°	125	458	443
65°	92	428	428
70°	113	437	437
75°	121	485	456
80°	181	638	499
85°	360	1080	720

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°	24.4	8.4
10°-20°	61.6	21.2
20°-30°	73.7	25.4
30°-40°	62.1	21.4
40°-50°	35.3	12.2
50°-60°	13.9	4.8
60°-70°	8.8	3.0
70°-80°	6.5	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°	159.8	55.0
0°-40°	221.8	76.3
0°-60°	271.1	93.3
0°-90°	290.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	290.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	267	267	267	267	267	
5°	255	261	260	263	265	24
15°	205	212	219	232	240	57
25°	143	149	158	174	186	65
35°	76	83	96	116	130	47
45°	16	29	49	61	68	15
55°	5	11	18	18	15	5
65°	2	10	10	9	10	2
75°	2	7	7	6	6	2
85°	2	5	5	5	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	266.9	266.9	266.9	266.9	266.9
2.5°	262.7	267.4	264.4	264.8	265.2
5°	255.4	260.9	260.1	263.1	265.2
7.5°	244.7	250.7	252.8	258.0	261.8
10°	232.8	239.6	243.0	251.1	255.8
12.5°	219.1	226.8	231.9	242.2	249.0
15°	204.6	211.8	218.7	231.5	239.6
17.5°	190.1	197.3	204.6	218.7	227.2
20°	174.7	181.5	189.2	204.1	214.0
22.5°	158.4	165.7	173.4	188.8	200.7
25°	142.6	149.1	157.6	173.8	186.2
27.5°	126.0	132.4	141.8	158.4	171.7
30°	109.3	115.7	126.4	143.5	158.4
32.5°	92.7	99.5	111.0	129.8	144.8
35°	76.4	83.3	95.7	116.2	129.8
37.5°	60.6	68.3	82.0	102.1	114.9
40°	44.8	53.8	70.0	88.0	98.7
42.5°	29.9	41.0	58.9	73.9	82.9
45°	16.2	28.6	48.7	61.1	67.5
47.5°	9.0	18.4	38.9	48.7	52.5
50°	7.3	12.8	29.9	37.2	37.6
52.5°	6.0	11.5	22.2	26.5	24.3
55°	5.1	11.1	17.5	17.9	14.9
57.5°	4.3	10.7	14.5	12.8	12.8
60°	3.4	10.7	12.4	11.5	12.0
62.5°	2.6	10.7	11.1	10.2	10.7
65°	2.1	9.8	9.8	9.4	9.8
67.5°	2.1	9.0	9.0	8.5	9.0
70°	2.1	8.5	8.1	8.1	8.1
72.5°	1.7	7.7	7.7	7.3	7.3
75°	1.7	6.8	6.8	6.4	6.4
77.5°	1.7	6.4	6.4	6.0	5.6
80°	1.7	5.6	6.0	5.6	4.7
82.5°	1.7	5.1	5.6	5.1	3.8
85°	1.7	4.7	5.1	4.7	3.4
87.5°	1.3	4.7	4.7	3.8	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	3.25	4.47	3.61	4.78	5.10	5.25	6.47	5.61	6.78	7.10
	3H	4.78	5.86	5.16	6.19	6.56	7.22	8.31	7.60	8.64	9.00
	4H	5.33	6.34	5.73	6.69	7.08	8.14	9.15	8.54	9.50	9.89
	6H	5.88	6.81	6.30	7.19	7.58	9.03	9.96	9.45	10.33	10.73
	8H	6.18	7.06	6.61	7.45	7.85	9.43	10.31	9.86	10.70	11.11
	12H	6.53	7.38	6.97	7.76	8.19	9.87	10.71	10.30	11.09	11.52
4H	2H	4.42	5.44	4.83	5.79	6.17	5.87	6.88	6.27	7.23	7.61
	3H	6.61	7.45	7.03	7.85	8.26	8.11	8.95	8.53	9.35	9.76
	4H	7.66	8.41	8.10	8.83	9.27	9.19	9.94	9.62	10.36	10.80
	6H	8.56	9.21	9.03	9.66	10.12	10.31	10.96	10.78	11.41	11.87
	8H	8.94	9.55	9.42	10.00	10.47	10.83	11.43	11.30	11.88	12.35
	12H	9.36	9.90	9.85	10.38	10.86	11.40	11.93	11.88	12.42	12.89
8H	4H	8.46	9.07	8.93	9.52	9.99	9.68	10.29	10.15	10.73	11.21
	6H	9.86	10.35	10.36	10.85	11.33	11.09	11.59	11.60	12.09	12.57
	8H	10.57	11.02	11.09	11.53	12.03	11.82	12.27	12.35	12.79	13.28
	12H	11.32	11.71	11.84	12.21	12.78	12.65	13.04	13.16	13.54	14.11
12H	4H	8.63	9.16	9.11	9.65	10.12	9.78	10.32	10.27	10.80	11.27
	6H	10.19	10.64	10.71	11.15	11.65	11.31	11.76	11.83	12.27	12.77
	8H	11.10	11.50	11.62	11.99	12.56	12.19	12.58	12.71	13.08	13.65