

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: P1057899

Luminaire Tested: S122RDRP-S290D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057899
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-S290D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

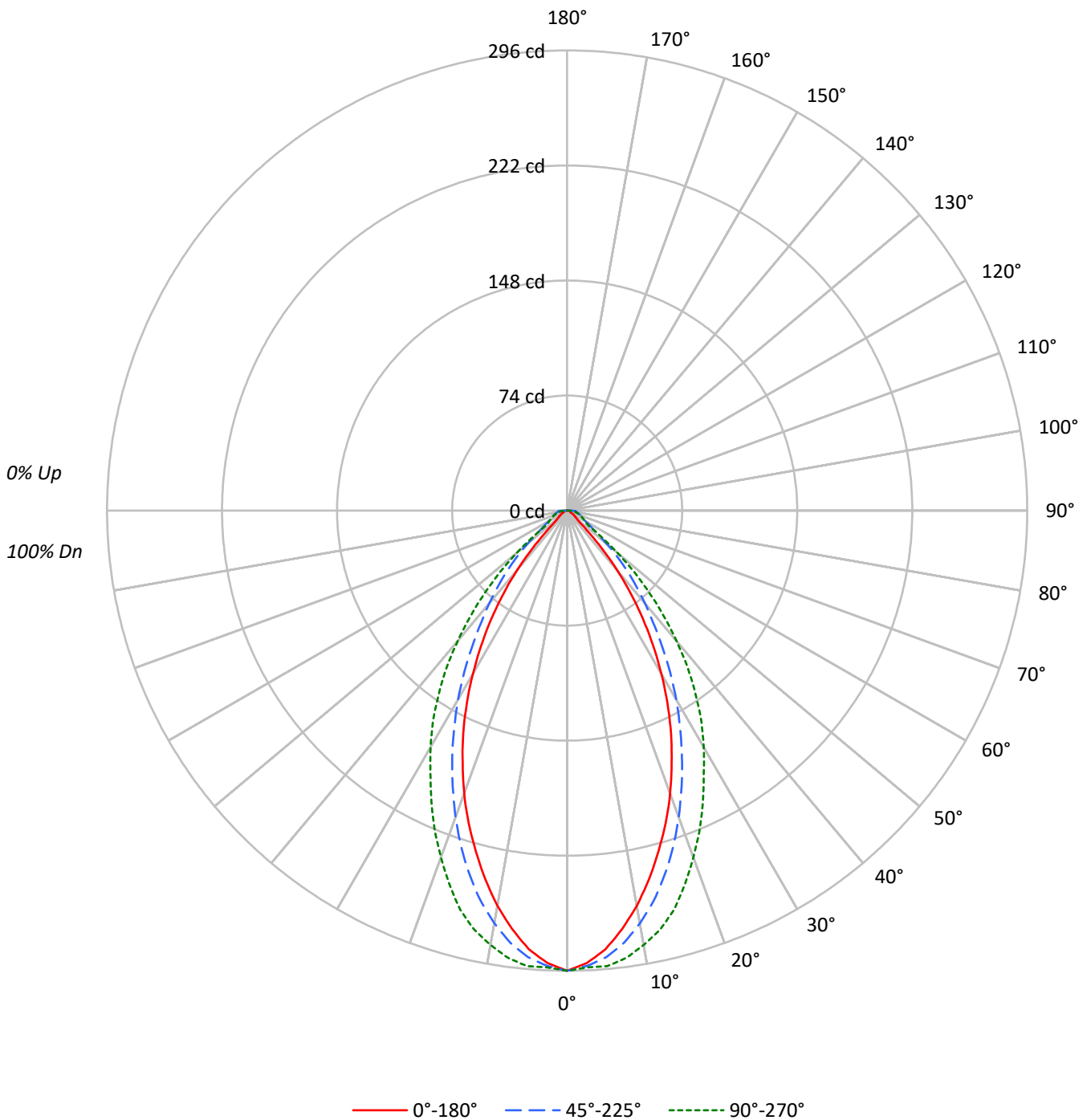
Lumens per Lamp: N/A
Luminaire Lumens: 322.2 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	
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°	5462	5462	5462
5°	5246	5342	5448
10°	4836	5050	5316
15°	4335	4633	5076
20°	3804	4120	4660
25°	3221	3559	4204
30°	2582	2987	3744
35°	1910	2390	3244
40°	1197	1872	2635
45°	470	1409	1952
50°	233	953	1197
55°	183	624	534
60°	140	506	491
65°	105	476	476
70°	129	486	486
75°	135	542	506
80°	202	701	553
85°	402	1207	805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 2200 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.0	8.4
10°-20°	68.4	21.2
20°-30°	81.8	25.4
30°-40°	68.8	21.4
40°-50°	39.2	12.2
50°-60°	15.5	4.8
60°-70°	9.7	3.0
70°-80°	7.2	2.2
80°-90°	4.6	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°	177.2	55.0
0°-40°	246.0	76.3
0°-60°	300.6	93.3
0°-90°	322.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	322.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	296	296	296	296	296	
5°	283	289	288	292	294	26
15°	227	235	242	257	266	63
25°	158	165	175	193	206	72
35°	85	92	106	129	144	53
45°	18	32	54	68	75	17
55°	6	12	19	20	17	5
65°	2	11	11	10	11	3
75°	2	8	8	7	7	2
85°	2	5	6	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	296.0	296.0	296.0	296.0	296.0
2.5°	291.3	296.5	293.2	293.7	294.1
5°	283.2	289.4	288.4	291.8	294.1
7.5°	271.4	278.0	280.4	286.1	290.3
10°	258.1	265.7	269.5	278.5	283.7
12.5°	243.0	251.5	257.2	268.5	276.1
15°	226.9	234.9	242.5	256.7	265.7
17.5°	210.8	218.8	226.9	242.5	252.0
20°	193.7	201.3	209.8	226.4	237.3
22.5°	175.7	183.8	192.3	209.3	222.6
25°	158.2	165.3	174.8	192.8	206.5
27.5°	139.7	146.8	157.2	175.7	190.4
30°	121.2	128.4	140.2	159.1	175.7
32.5°	102.8	110.4	123.1	144.0	160.6
35°	84.8	92.4	106.1	128.8	144.0
37.5°	67.3	75.8	90.9	113.2	127.4
40°	49.7	59.7	77.7	97.6	109.4
42.5°	33.2	45.5	65.4	81.9	91.9
45°	18.0	31.7	54.0	67.7	74.8
47.5°	9.9	20.4	43.1	54.0	58.3
50°	8.1	14.2	33.2	41.2	41.7
52.5°	6.6	12.8	24.6	29.4	27.0
55°	5.7	12.3	19.4	19.9	16.6
57.5°	4.7	11.8	16.1	14.2	14.2
60°	3.8	11.8	13.7	12.8	13.3
62.5°	2.8	11.8	12.3	11.4	11.8
65°	2.4	10.9	10.9	10.4	10.9
67.5°	2.4	9.9	9.9	9.5	9.9
70°	2.4	9.5	9.0	9.0	9.0
72.5°	1.9	8.5	8.5	8.1	8.1
75°	1.9	7.6	7.6	7.1	7.1
77.5°	1.9	7.1	7.1	6.6	6.2
80°	1.9	6.2	6.6	6.2	5.2
82.5°	1.9	5.7	6.2	5.7	4.3
85°	1.9	5.2	5.7	5.2	3.8
87.5°	1.4	5.2	5.2	4.3	2.8
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	3.56	4.79	3.93	5.10	5.41	5.61	6.83	5.98	7.14	7.46
	3H	5.12	6.21	5.50	6.54	6.90	7.58	8.67	7.96	9.00	9.37
	4H	5.68	6.69	6.09	7.04	7.43	8.50	9.51	8.91	9.87	10.25
	6H	6.24	7.17	6.66	7.54	7.94	9.39	10.32	9.81	10.69	11.09
	8H	6.54	7.42	6.97	7.81	8.22	9.80	10.68	10.23	11.07	11.48
	12H	6.90	7.74	7.33	8.13	8.56	10.24	11.08	10.68	11.47	11.90
4H	2H	4.76	5.77	5.16	6.12	6.51	6.23	7.24	6.64	7.60	7.98
	3H	6.97	7.80	7.38	8.21	8.61	8.48	9.31	8.89	9.72	10.12
	4H	8.03	8.78	8.47	9.20	9.64	9.55	10.30	9.99	10.72	11.16
	6H	8.93	9.58	9.39	10.03	10.49	10.67	11.31	11.13	11.76	12.23
	8H	9.32	9.92	9.79	10.37	10.84	11.19	11.80	11.66	12.25	12.72
	12H	9.74	10.27	10.23	10.76	11.23	11.77	12.31	12.26	12.79	13.27
8H	4H	8.83	9.44	9.30	9.88	10.36	10.04	10.65	10.51	11.10	11.57
	6H	10.22	10.72	10.72	11.21	11.70	11.45	11.94	11.95	12.44	12.92
	8H	10.94	11.39	11.47	11.91	12.40	12.19	12.64	12.71	13.15	13.65
	12H	11.69	12.09	12.21	12.58	13.15	13.02	13.42	13.54	13.91	14.48
12H	4H	8.99	9.53	9.48	10.01	10.49	10.14	10.68	10.63	11.16	11.64
	6H	10.55	11.00	11.08	11.52	12.01	11.66	12.11	12.19	12.63	13.12
	8H	11.47	11.87	11.99	12.36	12.93	12.56	12.95	13.07	13.44	14.02