

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: P1057903

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
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-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

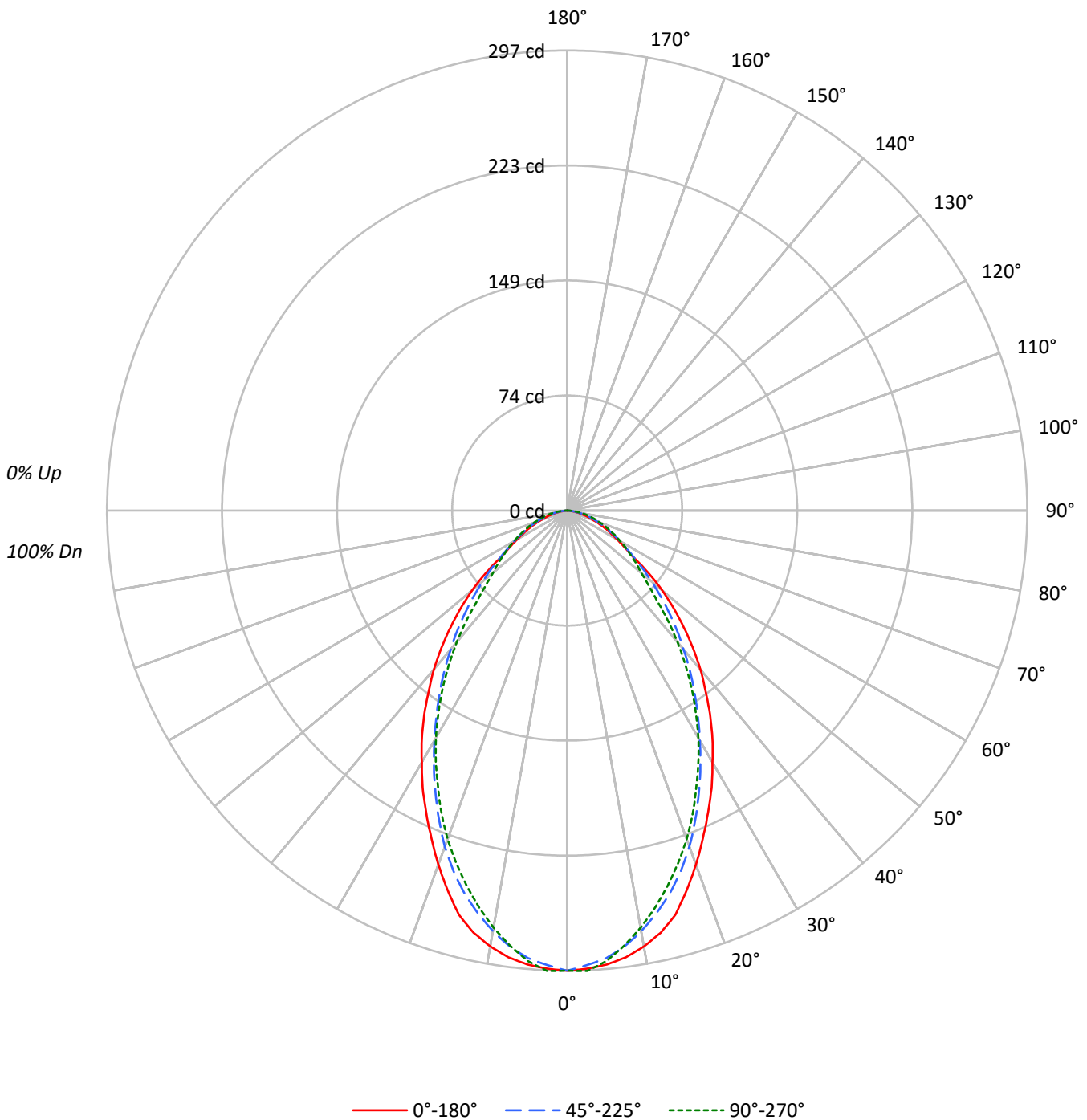
Lumens per Lamp: N/A
Luminaire Lumens: 451.0 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5480	5480	5480
5°	5448	5370	5405
10°	5351	5166	5121
15°	5158	4887	4787
20°	4774	4532	4430
25°	4381	4092	4015
30°	3999	3648	3607
35°	3622	3228	3154
40°	3223	2813	2667
45°	2777	2419	2135
50°	2294	2035	1791
55°	1657	1689	1612
60°	1380	1447	1465
65°	1179	1257	1340
70°	971	1122	1225
75°	806	941	1112
80°	606	754	1010
85°	191	402	910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2777 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.4	6.1
10°-20°	72.3	16.0
20°-30°	93.6	20.7
30°-40°	91.8	20.3
40°-50°	72.3	16.0
50°-60°	47.4	10.5
60°-70°	28.8	6.4
70°-80°	14.4	3.2
80°-90°	3.1	0.7
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°	193.3	42.9
0°-40°	285.0	63.2
0°-60°	404.7	89.7
0°-90°	451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	297	297	297	297	297	
5°	294	294	290	292	292	28
15°	270	266	256	252	251	75
25°	215	208	201	200	197	99
35°	161	152	143	143	140	100
45°	106	100	93	86	82	82
55°	52	54	52	51	50	49
65°	27	27	29	30	31	27
75°	11	12	13	15	16	12
85°	1	1	2	3	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	297.0	297.0	297.0	297.0	297.0
2.5°	296.0	296.5	293.7	296.5	297.4
5°	294.1	294.1	289.9	291.8	291.8
7.5°	290.8	290.3	283.7	283.7	283.2
10°	285.6	283.7	275.7	274.3	273.3
12.5°	279.0	275.7	266.2	263.9	262.4
15°	270.0	266.2	255.8	252.5	250.6
17.5°	256.8	253.0	244.0	240.2	238.3
20°	243.1	237.4	230.8	227.4	225.6
22.5°	228.9	222.2	216.1	213.7	211.8
25°	215.2	208.1	201.0	200.0	197.2
27.5°	201.9	193.4	186.3	185.8	183.5
30°	187.7	178.7	171.2	171.7	169.3
32.5°	174.5	166.0	157.0	157.5	154.6
35°	160.8	151.8	143.3	142.8	140.0
37.5°	146.6	138.1	130.0	128.1	125.3
40°	133.8	125.3	116.8	113.5	110.7
42.5°	120.1	112.5	105.0	99.8	96.0
45°	106.4	99.8	92.7	86.1	81.8
47.5°	93.2	88.0	81.8	73.8	70.9
50°	79.9	76.1	70.9	63.8	62.4
52.5°	66.2	64.8	61.5	56.7	56.3
55°	51.5	54.4	52.5	50.6	50.1
57.5°	43.5	44.0	45.4	44.9	44.9
60°	37.4	37.4	39.2	39.7	39.7
62.5°	31.7	32.2	34.0	35.0	35.0
65°	27.0	27.4	28.8	30.3	30.7
67.5°	22.2	23.2	24.6	26.0	26.5
70°	18.0	18.9	20.8	22.2	22.7
72.5°	14.7	15.1	17.0	18.4	18.9
75°	11.3	11.8	13.2	15.1	15.6
77.5°	8.0	9.0	10.4	11.8	12.8
80°	5.7	6.1	7.1	9.0	9.5
82.5°	3.3	3.8	4.7	6.1	6.6
85°	0.9	1.4	1.9	3.3	4.3
87.5°	0.0	0.0	0.0	0.9	1.9
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	12.04	13.43	12.40	13.75	14.06	12.21	13.60	12.57	13.92	14.23
	3H	13.17	14.41	13.55	14.74	15.11	13.67	14.91	14.05	15.24	15.61
	4H	13.52	14.68	13.92	15.03	15.41	14.21	15.37	14.61	15.72	16.11
	6H	13.70	14.77	14.11	15.14	15.53	14.63	15.70	15.04	16.07	16.46
	8H	13.73	14.75	14.16	15.14	15.54	14.75	15.77	15.18	16.16	16.56
	12H	13.71	14.68	14.14	15.07	15.50	14.84	15.81	15.27	16.19	16.62
4H	2H	12.49	13.65	12.89	14.00	14.39	12.63	13.80	13.04	14.15	14.53
	3H	13.83	14.79	14.24	15.19	15.59	14.31	15.26	14.72	15.67	16.07
	4H	14.27	15.13	14.71	15.55	15.99	14.97	15.83	15.40	16.25	16.69
	6H	14.54	15.29	15.00	15.73	16.20	15.51	16.25	15.97	16.70	17.16
	8H	14.59	15.28	15.05	15.73	16.20	15.68	16.37	16.14	16.82	17.29
	12H	14.58	15.20	15.07	15.68	16.15	15.80	16.41	16.28	16.89	17.37
8H	4H	14.49	15.18	14.95	15.63	16.10	15.12	15.81	15.59	16.26	16.73
	6H	14.83	15.40	15.33	15.89	16.37	15.75	16.32	16.25	16.82	17.30
	8H	14.91	15.42	15.43	15.93	16.42	15.99	16.50	16.50	17.01	17.50
	12H	14.92	15.37	15.44	15.87	16.44	16.17	16.62	16.68	17.11	17.68
12H	4H	14.50	15.11	14.98	15.59	16.07	15.11	15.72	15.59	16.20	16.68
	6H	14.86	15.37	15.37	15.88	16.37	15.75	16.26	16.27	16.77	17.26
	8H	14.97	15.42	15.49	15.92	16.49	16.02	16.47	16.53	16.97	17.53