

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: P1057893

Luminaire Tested: S122RDRP-S290D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057893
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S290D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

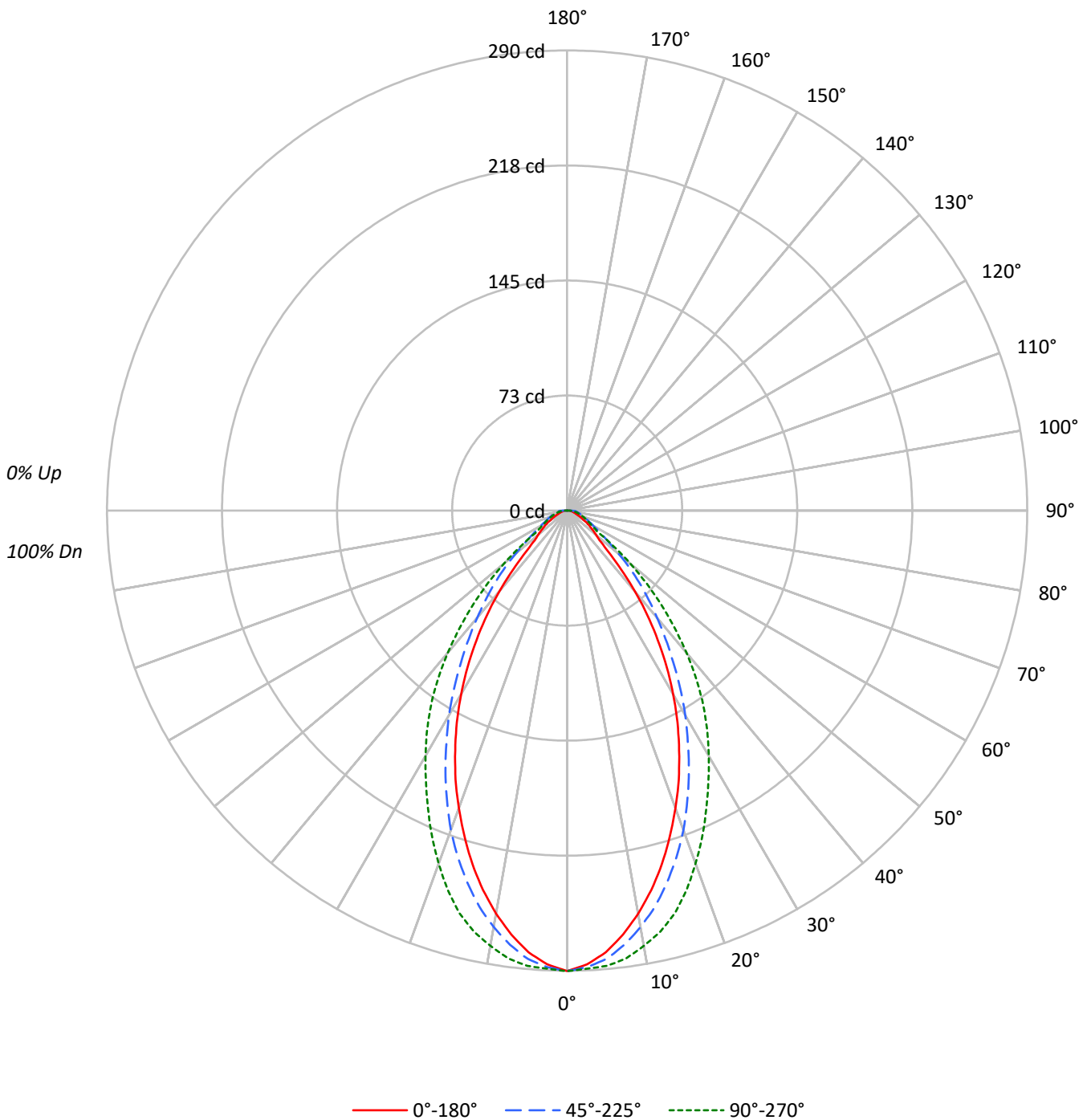
Lumens per Lamp: N/A
Luminaire Lumens: 352.0 lumens
Efficiency: N/A
Efficacy: 28.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5355	5355	5355
5°	5175	5255	5335
10°	4832	4993	5220
15°	4407	4638	5017
20°	3919	4208	4648
25°	3398	3695	4223
30°	2849	3170	3803
35°	2244	2622	3370
40°	1599	2120	2816
45°	945	1675	2184
50°	680	1214	1484
55°	569	875	750
60°	461	701	635
65°	375	620	585
70°	324	604	556
75°	307	613	556
80°	319	733	595
85°	466	1186	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2184 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	7.6
10°-20°	68.4	19.4
20°-30°	84.4	24.0
30°-40°	75.0	21.3
40°-50°	47.9	13.6
50°-60°	23.0	6.5
60°-70°	13.5	3.8
70°-80°	8.6	2.5
80°-90°	4.6	1.3
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°	179.4	51.0
0°-40°	254.4	72.3
0°-60°	325.3	92.4
0°-90°	352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	352.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	290	290	290	290	290	
5°	279	285	284	286	288	26
15°	231	236	243	254	263	64
25°	167	173	182	194	207	76
35°	100	107	116	134	150	62
45°	36	47	64	75	84	30
55°	18	23	27	26	23	16
65°	9	16	14	13	13	9
75°	4	10	9	8	8	5
85°	2	5	6	5	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	290.2	290.2	290.2	290.2	290.2
2.5°	286.3	291.1	288.0	288.0	288.9
5°	279.4	284.6	283.7	285.5	288.0
7.5°	269.5	275.1	276.0	280.7	284.6
10°	257.9	263.9	266.5	273.4	278.6
12.5°	244.9	251.0	255.7	264.3	271.7
15°	230.7	236.3	242.8	254.0	262.6
17.5°	215.2	222.5	229.0	240.6	250.5
20°	199.6	206.5	214.3	225.5	236.7
22.5°	183.7	190.2	197.9	209.6	222.5
25°	166.9	173.3	181.5	194.5	207.4
27.5°	150.5	157.0	164.7	178.9	192.7
30°	133.7	140.1	148.8	163.4	178.5
32.5°	116.9	123.8	132.4	148.3	164.3
35°	99.6	107.4	116.4	134.1	149.6
37.5°	82.8	90.6	101.8	119.0	133.7
40°	66.4	75.5	88.0	103.5	116.9
42.5°	50.5	60.4	75.9	88.4	100.0
45°	36.2	47.0	64.2	74.6	83.7
47.5°	27.6	35.4	53.0	61.2	67.7
50°	23.7	28.5	42.3	48.3	51.7
52.5°	20.7	25.0	33.6	36.7	36.7
55°	17.7	22.9	27.2	26.3	23.3
57.5°	15.1	20.7	22.4	19.0	19.8
60°	12.5	19.0	19.0	16.8	17.2
62.5°	10.3	17.7	16.4	14.7	15.1
65°	8.6	15.5	14.2	12.9	13.4
67.5°	6.9	13.8	12.5	11.6	11.6
70°	6.0	12.5	11.2	10.3	10.3
72.5°	5.2	10.8	9.9	9.1	9.1
75°	4.3	9.5	8.6	8.2	7.8
77.5°	3.9	8.2	7.8	6.9	6.5
80°	3.0	6.9	6.9	6.5	5.6
82.5°	2.6	6.0	6.0	5.6	4.7
85°	2.2	5.2	5.6	4.7	3.4
87.5°	1.7	4.7	4.7	3.9	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	7.50	8.78	7.87	9.09	9.41	7.30	8.57	7.66	8.89	9.20
	3H	8.73	9.87	9.11	10.20	10.56	8.88	10.01	9.26	10.34	10.71
	4H	9.19	10.24	9.59	10.60	10.98	9.60	10.66	10.00	11.01	11.39
	6H	9.57	10.54	9.98	10.91	11.31	10.25	11.23	10.67	11.60	11.99
	8H	9.72	10.64	10.15	11.03	11.44	10.58	11.50	11.01	11.89	12.30
	12H	9.88	10.77	10.32	11.15	11.58	10.87	11.75	11.30	12.14	12.57
4H	2H	8.05	9.11	8.45	9.46	9.84	7.89	8.94	8.29	9.30	9.68
	3H	9.74	10.61	10.16	11.02	11.42	9.71	10.58	10.13	10.99	11.39
	4H	10.54	11.32	10.98	11.74	12.19	10.59	11.37	11.03	11.79	12.24
	6H	11.18	11.86	11.65	12.31	12.78	11.44	12.12	11.91	12.57	13.03
	8H	11.43	12.07	11.90	12.51	12.98	11.86	12.50	12.33	12.94	13.41
	12H	11.68	12.24	12.17	12.73	13.20	12.26	12.82	12.74	13.30	13.77
8H	4H	10.96	11.59	11.43	12.04	12.51	11.01	11.64	11.48	12.09	12.56
	6H	11.94	12.46	12.44	12.95	13.43	12.10	12.62	12.60	13.12	13.60
	8H	12.42	12.89	12.95	13.41	13.90	12.69	13.16	13.21	13.67	14.16
	12H	12.93	13.35	13.45	13.84	14.41	13.28	13.69	13.80	14.19	14.76
12H	4H	11.03	11.59	11.51	12.07	12.54	11.09	11.65	11.57	12.13	12.60
	6H	12.10	12.57	12.63	13.09	13.58	12.26	12.73	12.79	13.25	13.74
	8H	12.74	13.15	13.25	13.64	14.22	12.97	13.38	13.49	13.88	14.45