

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058298

Luminaire Tested: S122RDR-H290D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058298
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: S122RDR-H290D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

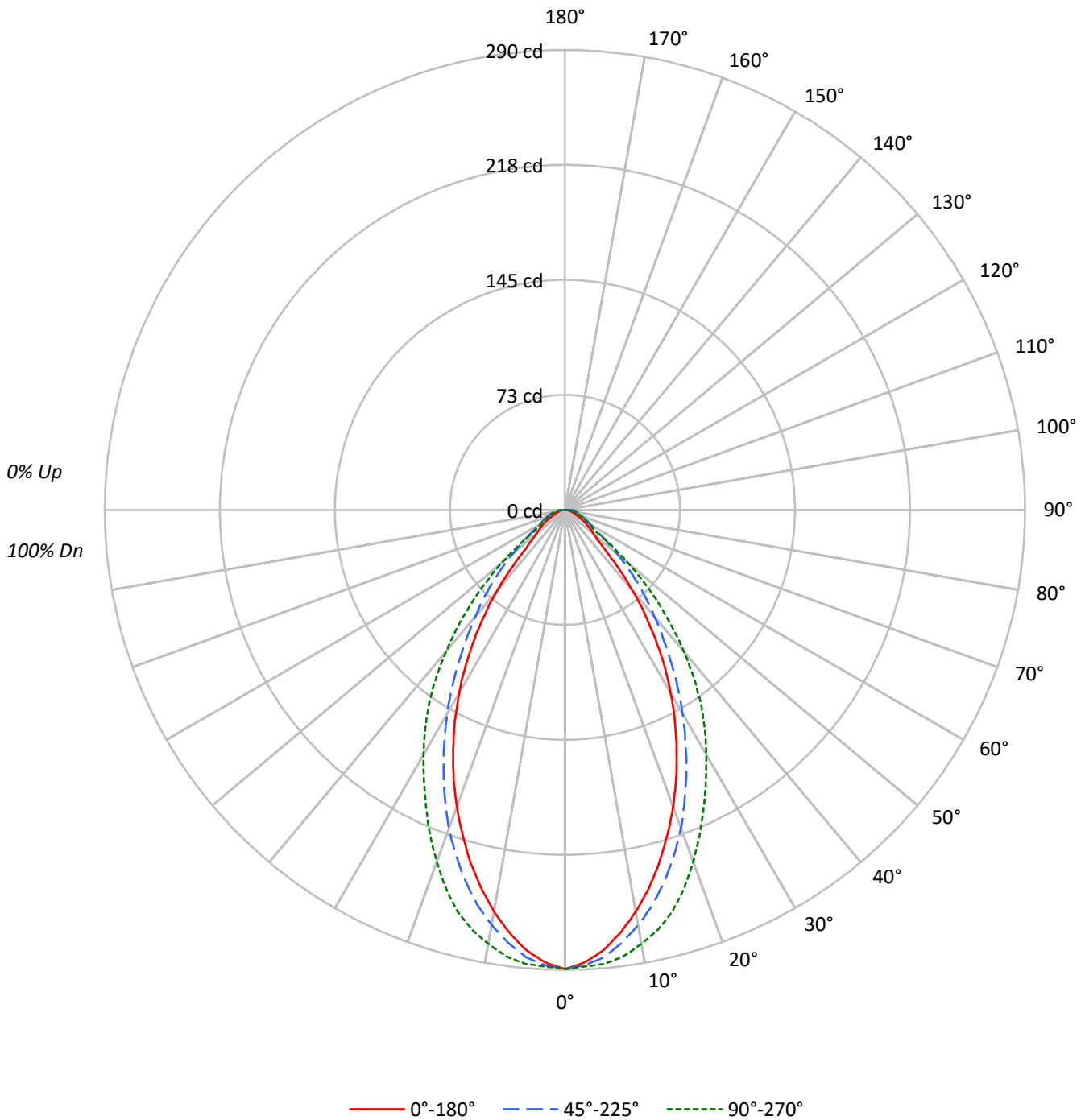
Lumens per Lamp: N/A
Luminaire Lumens: 351.1 lumens
Efficiency: N/A
Efficacy: 30.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
Input Current (Ain): 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				
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°	5342	5342	5342
5°	5162	5242	5322
10°	4819	4980	5207
15°	4396	4627	5005
20°	3912	4198	4636
25°	3390	3687	4212
30°	2840	3162	3795
35°	2239	2615	3363
40°	1595	2113	2809
45°	942	1673	2176
50°	680	1211	1481
55°	566	872	746
60°	461	698	635
65°	375	620	581
70°	324	604	556
75°	307	613	549
80°	319	733	595
85°	466	1186	720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2176 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	7.6
10°-20°	68.2	19.4
20°-30°	84.1	24.0
30°-40°	74.9	21.3
40°-50°	47.8	13.6
50°-60°	22.9	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°	178.9	51.0
0°-40°	253.8	72.3
0°-60°	324.5	92.4
0°-90°	351.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	351.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	290	290	290	290	290	
5°	279	284	283	285	287	26
15°	230	236	242	253	262	64
25°	166	173	181	194	207	76
35°	99	107	116	134	149	62
45°	36	47	64	74	83	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°	289.5	289.5	289.5	289.5	289.5
2.5°	285.6	290.3	287.3	287.3	288.2
5°	278.7	283.9	283.0	284.8	287.3
7.5°	268.8	274.4	275.3	280.0	283.9
10°	257.2	263.2	265.8	272.7	277.9
12.5°	244.3	250.3	255.1	263.7	271.0
15°	230.1	235.7	242.2	253.4	262.0
17.5°	214.6	222.0	228.4	240.0	249.9
20°	199.2	206.0	213.8	225.0	236.1
22.5°	183.2	189.7	197.4	209.0	222.0
25°	166.5	172.9	181.1	194.0	206.9
27.5°	150.1	156.6	164.3	178.5	192.3
30°	133.3	139.8	148.4	163.0	178.1
32.5°	116.6	123.5	132.1	148.0	163.9
35°	99.4	107.1	116.1	133.8	149.3
37.5°	82.6	90.3	101.5	118.7	133.3
40°	66.2	75.3	87.7	103.2	116.6
42.5°	50.3	60.2	75.7	88.2	99.8
45°	36.1	46.9	64.1	74.4	83.4
47.5°	27.5	35.3	52.9	61.1	67.5
50°	23.7	28.4	42.2	48.2	51.6
52.5°	20.6	24.9	33.6	36.6	36.6
55°	17.6	22.8	27.1	26.2	23.2
57.5°	15.1	20.6	22.4	18.9	19.8
60°	12.5	18.9	18.9	16.8	17.2
62.5°	10.3	17.6	16.3	14.6	15.1
65°	8.6	15.5	14.2	12.9	13.3
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	9.0	9.0
75°	4.3	9.5	8.6	8.2	7.7
77.5°	3.9	8.2	7.7	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	7.48	8.76	7.85	9.07	9.39	7.28	8.55	7.64	8.87	9.18
	3H	8.72	9.86	9.10	10.19	10.55	8.87	10.00	9.25	10.33	10.70
	4H	9.18	10.24	9.58	10.59	10.97	9.58	10.64	9.98	10.99	11.38
	6H	9.56	10.53	9.98	10.91	11.30	10.24	11.22	10.66	11.59	11.98
	8H	9.72	10.64	10.15	11.03	11.43	10.57	11.49	11.00	11.88	12.29
	12H	9.88	10.76	10.31	11.14	11.57	10.86	11.74	11.30	12.13	12.56
4H	2H	8.03	9.09	8.44	9.44	9.83	7.87	8.93	8.27	9.28	9.67
	3H	9.74	10.61	10.15	11.01	11.42	9.71	10.58	10.12	10.98	11.38
	4H	10.54	11.32	10.97	11.74	12.18	10.58	11.36	11.02	11.78	12.23
	6H	11.18	11.86	11.65	12.31	12.77	11.43	12.11	11.90	12.56	13.03
	8H	11.43	12.07	11.90	12.51	12.99	11.86	12.49	12.33	12.94	13.41
	12H	11.69	12.25	12.17	12.73	13.20	12.25	12.81	12.74	13.30	13.77
8H	4H	10.95	11.59	11.42	12.04	12.51	11.00	11.63	11.47	12.08	12.55
	6H	11.94	12.45	12.44	12.95	13.43	12.10	12.61	12.60	13.11	13.59
	8H	12.42	12.89	12.95	13.41	13.90	12.69	13.15	13.21	13.67	14.16
	12H	12.93	13.35	13.45	13.84	14.41	13.28	13.69	13.79	14.19	14.76
12H	4H	11.02	11.58	11.51	12.07	12.54	11.07	11.63	11.56	12.12	12.59
	6H	12.10	12.57	12.62	13.09	13.58	12.26	12.73	12.78	13.24	13.73
	8H	12.74	13.15	13.25	13.64	14.22	12.97	13.38	13.48	13.88	14.45