

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: P1058337

Luminaire Tested: S122RDR-H290D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058337
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D935-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

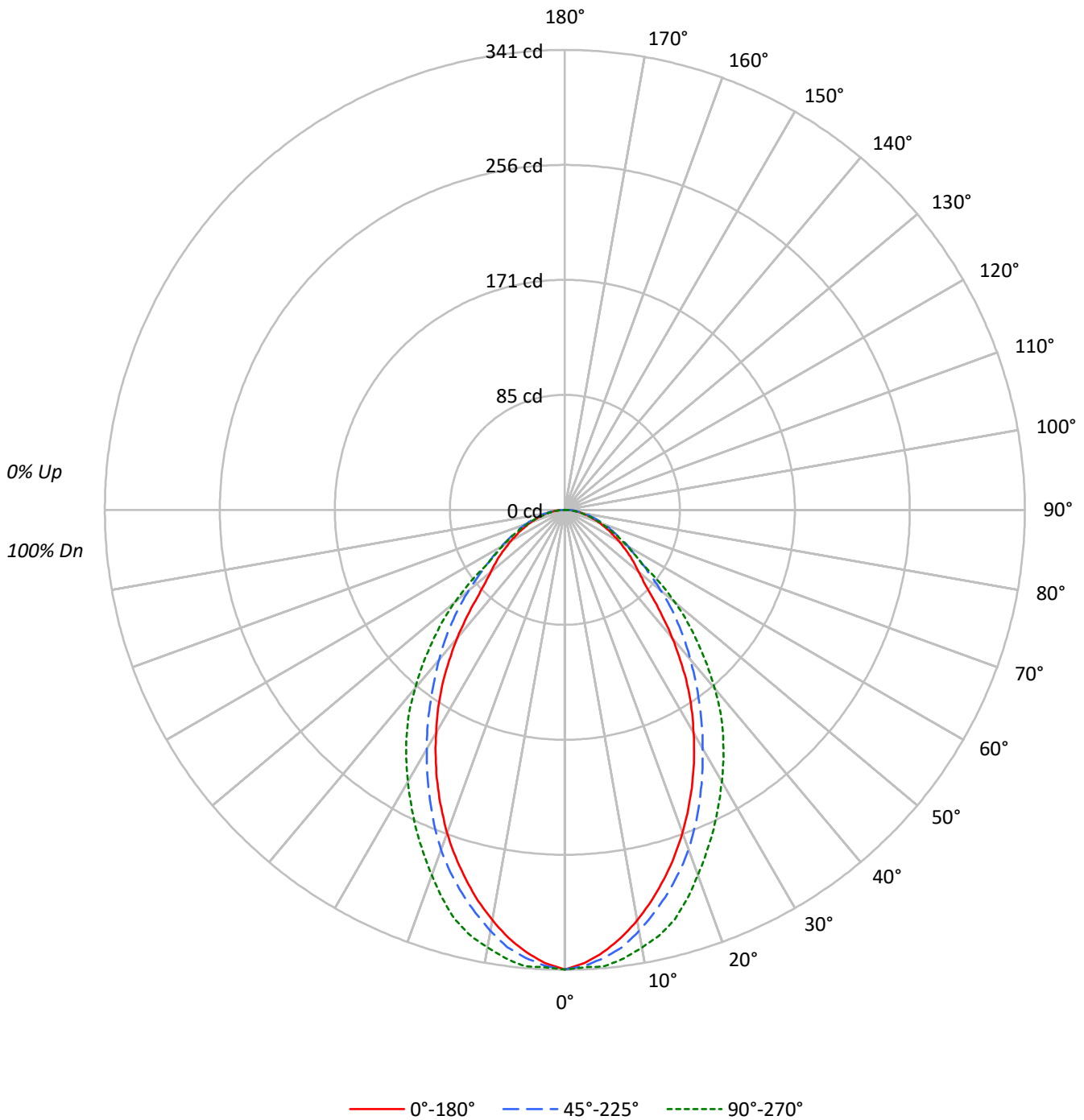
Lumens per Lamp: N/A
Luminaire Lumens: 555.7 lumens
Efficiency: N/A
Efficacy: 47.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6289	6289	6289
5°	6096	6177	6292
10°	5790	5940	6174
15°	5420	5622	6008
20°	5009	5269	5663
25°	4553	4821	5314
30°	4068	4357	4958
35°	3566	3906	4607
40°	2985	3488	4158
45°	2390	3090	3635
50°	2053	2661	3052
55°	1876	2265	2252
60°	1705	2000	1960
65°	1554	1790	1712
70°	1424	1640	1521
75°	1333	1519	1333
80°	1243	1403	1169
85°	1249	1482	1016

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3635 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.5	5.7
10°-20°	83.3	15.0
20°-30°	109.9	19.8
30°-40°	110.6	19.9
40°-50°	90.1	16.2
50°-60°	61.4	11.0
60°-70°	39.8	7.2
70°-80°	22.0	4.0
80°-90°	7.2	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°	224.6	40.4
0°-40°	335.3	60.3
0°-60°	486.7	87.6
0°-90°	555.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	555.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	341	341	341	341	341	
5°	329	335	334	336	340	31
15°	284	291	294	306	314	79
25°	224	231	237	247	261	103
35°	158	166	173	188	204	98
45°	92	103	118	129	139	72
55°	58	64	70	71	70	52
65°	36	42	41	39	39	35
75°	19	23	21	19	19	20
85°	6	8	7	6	5	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	340.8	340.8	340.8	340.8	340.8
2.5°	336.5	341.9	338.3	338.6	339.4
5°	329.1	335.4	333.5	336.5	339.7
7.5°	320.0	326.2	326.9	331.3	335.4
10°	309.0	315.9	317.0	323.6	329.5
12.5°	296.9	304.6	306.0	315.6	323.3
15°	283.7	291.0	294.3	306.4	314.5
17.5°	269.7	276.7	281.8	292.8	302.0
20°	255.1	261.7	268.3	278.2	288.4
22.5°	239.3	246.7	252.9	262.8	274.5
25°	223.6	230.9	236.8	247.4	261.0
27.5°	207.4	214.8	220.6	232.0	246.7
30°	190.9	198.6	204.5	217.3	232.7
32.5°	174.8	182.5	189.1	202.7	218.8
35°	158.3	166.4	173.4	188.4	204.5
37.5°	140.7	149.9	158.7	173.7	189.5
40°	123.9	134.1	144.8	158.7	172.6
42.5°	107.0	118.4	131.6	143.3	156.1
45°	91.6	103.0	118.4	128.6	139.3
47.5°	79.5	89.1	105.6	114.0	123.5
50°	71.5	78.1	92.7	99.3	106.3
52.5°	64.9	70.4	80.6	85.0	88.7
55°	58.3	64.1	70.4	70.7	70.0
57.5°	51.7	58.3	61.6	59.0	60.5
60°	46.2	52.8	54.2	51.7	53.1
62.5°	40.3	47.6	47.6	45.1	45.8
65°	35.6	42.1	41.0	38.8	39.2
67.5°	30.8	37.4	35.6	33.4	33.4
70°	26.4	32.6	30.4	28.2	28.2
72.5°	22.4	27.5	26.0	23.5	23.1
75°	18.7	23.1	21.3	19.1	18.7
77.5°	15.0	18.7	17.2	15.4	14.7
80°	11.7	15.0	13.2	11.7	11.0
82.5°	8.8	11.4	9.9	8.4	7.7
85°	5.9	7.7	7.0	5.5	4.8
87.5°	2.9	5.1	4.4	3.7	2.9
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	13.11	14.55	13.48	14.86	15.18	13.36	14.79	13.72	15.11	15.42
	3H	14.64	15.93	15.02	16.25	16.62	14.71	16.00	15.09	16.33	16.69
	4H	15.20	16.41	15.60	16.76	17.14	15.20	16.40	15.60	16.75	17.13
	6H	15.62	16.73	16.04	17.10	17.50	15.55	16.66	15.96	17.03	17.42
	8H	15.78	16.83	16.20	17.22	17.63	15.65	16.71	16.08	17.10	17.50
	12H	15.89	16.90	16.32	17.28	17.71	15.72	16.73	16.15	17.12	17.55
4H	2H	13.68	14.89	14.08	15.24	15.62	13.88	15.08	14.28	15.43	15.81
	3H	15.48	16.48	15.90	16.88	17.29	15.45	16.45	15.87	16.85	17.26
	4H	16.23	17.12	16.66	17.54	17.98	16.05	16.95	16.48	17.36	17.80
	6H	16.81	17.59	17.27	18.04	18.50	16.52	17.30	16.98	17.74	18.20
	8H	17.02	17.75	17.49	18.20	18.66	16.67	17.40	17.13	17.84	18.31
	12H	17.19	17.84	17.67	18.32	18.79	16.78	17.43	17.26	17.91	18.38
8H	4H	16.49	17.22	16.96	17.67	18.14	16.34	17.07	16.81	17.51	17.98
	6H	17.25	17.85	17.74	18.34	18.82	16.93	17.53	17.43	18.02	18.50
	8H	17.57	18.11	18.09	18.62	19.11	17.15	17.69	17.67	18.20	18.69
	12H	17.86	18.33	18.37	18.83	19.39	17.33	17.81	17.85	18.30	18.87
12H	4H	16.51	17.16	16.99	17.64	18.11	16.37	17.02	16.86	17.50	17.97
	6H	17.29	17.83	17.81	18.34	18.83	17.00	17.54	17.51	18.05	18.54
	8H	17.69	18.17	18.20	18.66	19.23	17.28	17.76	17.79	18.25	18.82