

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: P1058307

Luminaire Tested: S122RDR-H290D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058307
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-H290D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

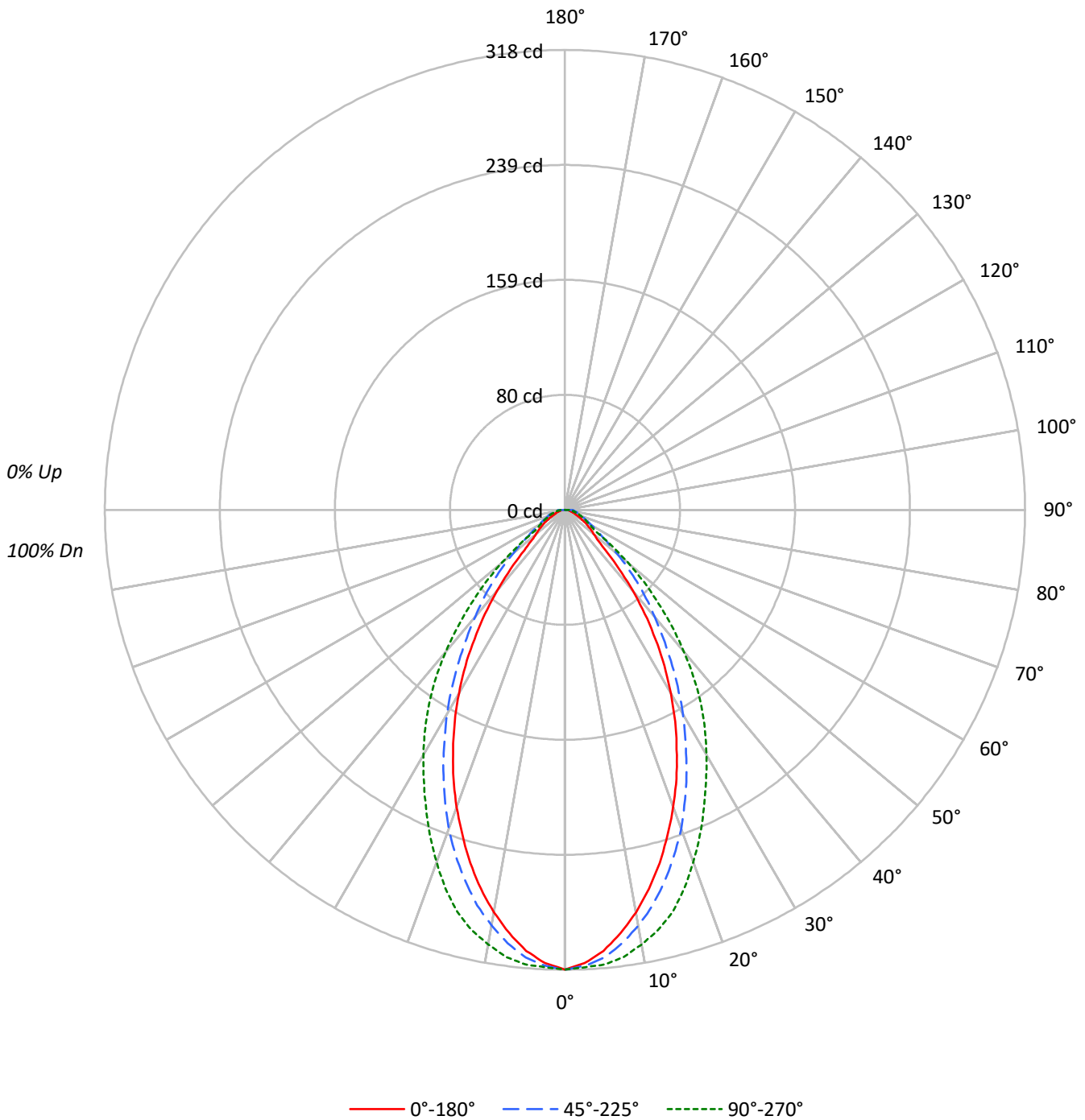
Lumens per Lamp: N/A
Luminaire Lumens: 385.6 lumens
Efficiency: N/A
Efficacy: 33.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5866	5866	5866
5°	5670	5757	5844
10°	5293	5469	5717
15°	4827	5080	5496
20°	4295	4611	5092
25°	3722	4050	4626
30°	3119	3473	4168
35°	2458	2872	3692
40°	1751	2322	3083
45°	1036	1837	2390
50°	746	1329	1628
55°	624	959	820
60°	506	768	698
65°	410	681	637
70°	356	664	610
75°	335	670	606
80°	351	808	648
85°	508	1291	805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2390 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.2	7.6
10°-20°	74.9	19.4
20°-30°	92.4	24.0
30°-40°	82.2	21.3
40°-50°	52.5	13.6
50°-60°	25.2	6.5
60°-70°	14.8	3.8
70°-80°	9.5	2.5
80°-90°	5.0	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°	196.5	51.0
0°-40°	278.7	72.3
0°-60°	356.3	92.4
0°-90°	385.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	385.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	318	318	318	318	318	
5°	306	312	311	313	316	28
15°	253	259	266	278	288	70
25°	183	190	199	213	227	84
35°	109	118	128	147	164	68
45°	40	52	70	82	92	33
55°	19	25	30	29	26	17
65°	9	17	16	14	15	9
75°	5	10	9	9	8	5
85°	2	6	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°	317.9	317.9	317.9	317.9	317.9
2.5°	313.7	318.8	315.5	315.5	316.5
5°	306.1	311.8	310.8	312.7	315.5
7.5°	295.2	301.4	302.3	307.5	311.8
10°	282.5	289.1	291.9	299.5	305.1
12.5°	268.3	274.9	280.1	289.6	297.6
15°	252.7	258.9	265.9	278.2	287.7
17.5°	235.7	243.7	250.8	263.6	274.4
20°	218.7	226.3	234.8	247.0	259.3
22.5°	201.2	208.3	216.8	229.6	243.7
25°	182.8	189.9	198.9	213.0	227.2
27.5°	164.9	171.9	180.4	196.0	211.1
30°	146.4	153.5	163.0	179.0	195.6
32.5°	128.0	135.6	145.0	162.5	180.0
35°	109.1	117.6	127.5	146.9	163.9
37.5°	90.7	99.2	111.5	130.4	146.4
40°	72.7	82.7	96.4	113.4	128.0
42.5°	55.3	66.1	83.1	96.8	109.6
45°	39.7	51.5	70.4	81.7	91.6
47.5°	30.2	38.7	58.1	67.1	74.2
50°	26.0	31.2	46.3	52.9	56.7
52.5°	22.7	27.4	36.8	40.2	40.2
55°	19.4	25.0	29.8	28.8	25.5
57.5°	16.5	22.7	24.6	20.8	21.7
60°	13.7	20.8	20.8	18.4	18.9
62.5°	11.3	19.4	17.9	16.1	16.5
65°	9.4	17.0	15.6	14.2	14.6
67.5°	7.6	15.1	13.7	12.8	12.8
70°	6.6	13.7	12.3	11.3	11.3
72.5°	5.7	11.8	10.9	9.9	9.9
75°	4.7	10.4	9.4	9.0	8.5
77.5°	4.3	9.0	8.5	7.6	7.1
80°	3.3	7.6	7.6	7.1	6.1
82.5°	2.8	6.6	6.6	6.1	5.2
85°	2.4	5.7	6.1	5.2	3.8
87.5°	1.9	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	7.82	9.10	8.19	9.41	9.73	7.61	8.89	7.98	9.20	9.51
	3H	9.05	10.19	9.43	10.52	10.88	9.20	10.34	9.58	10.67	11.03
	4H	9.51	10.56	9.91	10.92	11.30	9.92	10.98	10.32	11.33	11.71
	6H	9.89	10.86	10.31	11.23	11.63	10.57	11.55	10.99	11.92	12.31
	8H	10.04	10.96	10.47	11.36	11.76	10.90	11.82	11.33	12.21	12.62
	12H	10.20	11.08	10.63	11.47	11.90	11.20	12.08	11.63	12.46	12.89
4H	2H	8.37	9.43	8.78	9.78	10.17	8.20	9.26	8.61	9.61	10.00
	3H	10.07	10.94	10.48	11.34	11.75	10.04	10.91	10.45	11.32	11.72
	4H	10.86	11.64	11.30	12.06	12.51	10.92	11.70	11.35	12.12	12.56
	6H	11.51	12.19	11.97	12.63	13.10	11.76	12.44	12.22	12.88	13.35
	8H	11.76	12.39	12.23	12.84	13.31	12.18	12.82	12.65	13.26	13.73
	12H	12.00	12.56	12.49	13.05	13.52	12.59	13.15	13.07	13.63	14.10
8H	4H	11.28	11.91	11.75	12.36	12.83	11.33	11.97	11.80	12.41	12.88
	6H	12.26	12.78	12.77	13.28	13.76	12.42	12.94	12.92	13.44	13.92
	8H	12.75	13.22	13.27	13.73	14.23	13.01	13.47	13.53	13.99	14.48
	12H	13.26	13.67	13.77	14.16	14.74	13.61	14.02	14.12	14.52	15.09
12H	4H	11.35	11.91	11.83	12.39	12.86	11.41	11.97	11.90	12.45	12.93
	6H	12.43	12.90	12.95	13.41	13.91	12.58	13.05	13.11	13.57	14.06
	8H	13.06	13.48	13.58	13.97	14.54	13.29	13.70	13.81	14.20	14.77