

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: P1059711

Luminaire Tested: S123RDR-H560D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059711
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D935-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

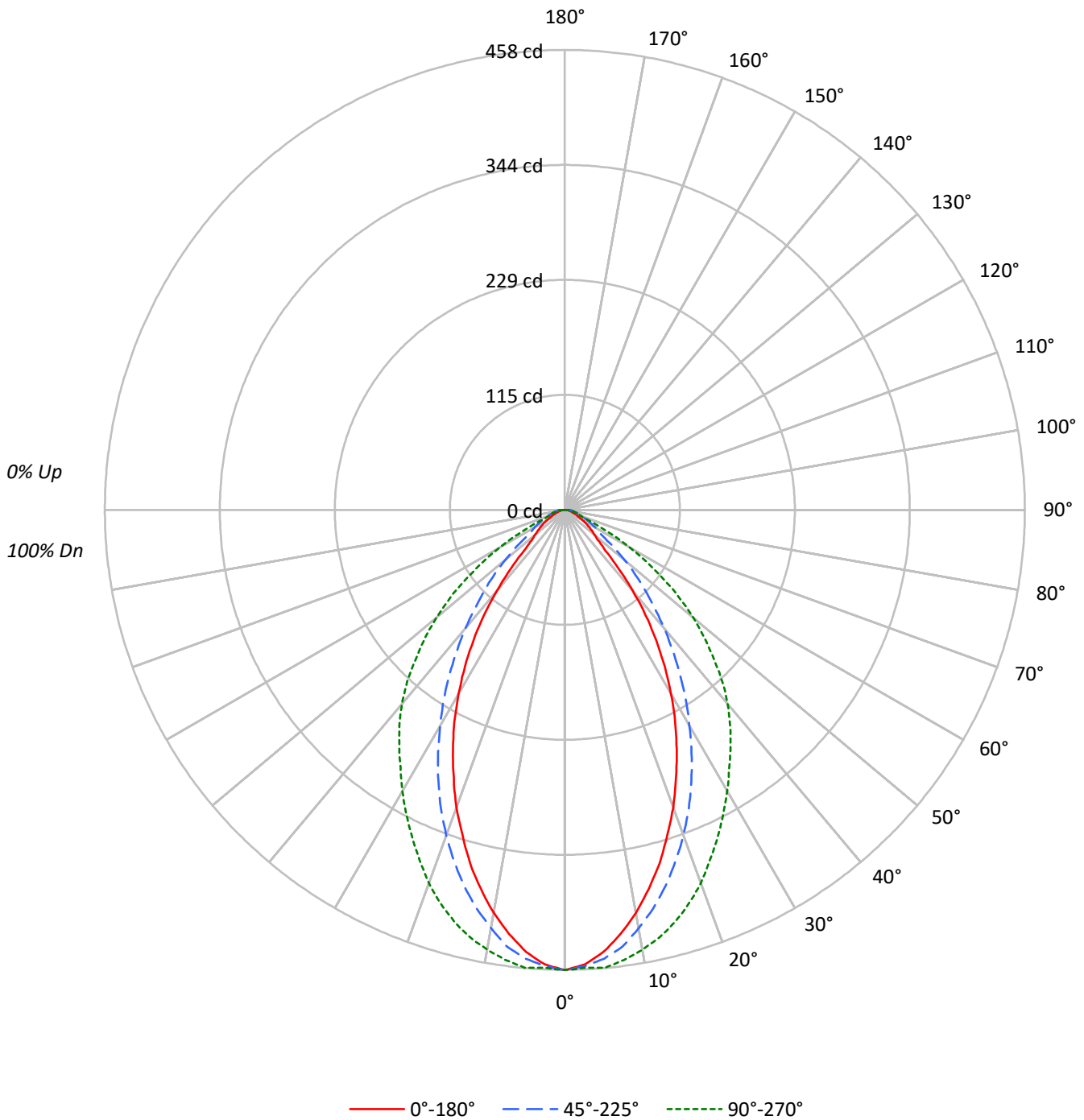
Lumens per Lamp: N/A
Luminaire Lumens: 615.2 lumens
Efficiency: N/A
Efficacy: 35.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5382	5382	5382
5°	5208	5288	5395
10°	4860	5044	5302
15°	4430	4713	5163
20°	3941	4311	4945
25°	3415	3858	4662
30°	2864	3365	4385
35°	2269	2864	4121
40°	1606	2356	3866
45°	945	1863	3479
50°	707	1414	3047
55°	594	956	2448
60°	481	815	1738
65°	381	697	917
70°	333	604	566
75°	309	567	544
80°	311	615	541
85°	377	916	687

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3479 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	6.9
10°-20°	109.6	17.8
20°-30°	139.6	22.7
30°-40°	131.3	21.3
40°-50°	94.6	15.4
50°-60°	54.6	8.9
60°-70°	25.0	4.1
70°-80°	12.5	2.0
80°-90°	5.9	1.0
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°	291.4	47.4
0°-40°	422.7	68.7
0°-60°	571.9	93.0
0°-90°	615.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	615.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	458	458	458	458	458	
5°	442	449	449	453	458	41
15°	364	378	388	409	425	102
25°	264	277	298	331	360	121
35°	158	172	200	246	288	98
45°	57	71	112	168	210	48
55°	29	30	47	89	120	26
65°	14	19	25	28	33	14
75°	7	13	12	12	12	7
85°	3	6	7	6	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	458.3	458.3	458.3	458.3	458.3
2.5°	453.2	458.9	454.9	455.5	456.6
5°	441.8	449.2	448.6	453.2	457.7
7.5°	425.9	434.4	439.0	445.8	452.1
10°	407.6	417.3	423.0	435.5	444.7
12.5°	386.6	399.1	406.5	423.0	436.1
15°	364.4	377.5	387.7	409.4	424.7
17.5°	339.3	353.6	366.7	392.3	411.1
20°	315.4	329.1	345.0	372.9	395.7
22.5°	289.2	304.0	322.2	351.8	377.5
25°	263.6	277.3	297.8	330.8	359.8
27.5°	238.0	251.6	273.3	309.7	341.6
30°	211.2	225.5	248.2	288.7	323.4
32.5°	185.0	198.7	224.3	268.2	304.6
35°	158.3	171.9	199.8	246.0	287.5
37.5°	132.1	146.3	175.9	227.7	270.4
40°	104.8	120.1	153.7	208.9	252.2
42.5°	79.1	95.6	131.5	189.6	232.3
45°	56.9	71.2	112.2	168.5	209.5
47.5°	44.4	51.8	94.5	146.9	188.4
50°	38.7	39.9	77.4	127.0	166.8
52.5°	33.6	34.7	60.9	108.2	144.0
55°	29.0	30.2	46.7	88.8	119.6
57.5°	24.5	26.2	38.7	70.6	96.2
60°	20.5	22.8	34.7	54.1	74.0
62.5°	16.5	20.5	29.6	39.9	52.9
65°	13.7	19.4	25.1	27.9	33.0
67.5°	11.4	17.6	21.1	19.9	19.4
70°	9.7	15.9	17.6	15.9	16.5
72.5°	8.0	14.8	14.8	13.7	13.7
75°	6.8	13.1	12.5	12.0	12.0
77.5°	5.7	11.4	10.8	10.2	9.7
80°	4.6	9.1	9.1	8.5	8.0
82.5°	4.0	7.4	7.4	7.4	6.3
85°	2.8	6.3	6.8	6.3	5.1
87.5°	2.3	5.7	5.7	5.1	3.4
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	5.82	7.14	6.19	7.45	7.77	13.18	14.50	13.55	14.81	15.13
	3H	7.21	8.38	7.59	8.71	9.07	13.41	14.58	13.79	14.91	15.28
	4H	7.76	8.85	8.16	9.20	9.58	13.53	14.62	13.93	14.97	15.35
	6H	8.20	9.20	8.61	9.57	9.96	13.64	14.64	14.06	15.01	15.41
	8H	8.37	9.32	8.80	9.71	10.12	13.69	14.64	14.12	15.03	15.44
	12H	8.53	9.44	8.96	9.82	10.25	13.75	14.66	14.19	15.04	15.47
4H	2H	6.92	8.01	7.33	8.37	8.75	13.14	14.23	13.54	14.58	14.96
	3H	8.58	9.47	8.99	9.88	10.28	13.50	14.39	13.91	14.80	15.20
	4H	9.39	10.19	9.83	10.61	11.05	13.70	14.50	14.13	14.92	15.36
	6H	10.03	10.72	10.49	11.17	11.63	13.92	14.62	14.39	15.06	15.53
	8H	10.26	10.91	10.73	11.36	11.83	14.03	14.68	14.50	15.12	15.59
	12H	10.48	11.05	10.96	11.53	12.00	14.16	14.73	14.64	15.21	15.69
8H	4H	9.83	10.48	10.30	10.92	11.40	13.73	14.38	14.20	14.83	15.30
	6H	10.74	11.27	11.25	11.77	12.25	14.06	14.59	14.56	15.09	15.57
	8H	11.16	11.64	11.69	12.16	12.65	14.25	14.73	14.77	15.24	15.74
	12H	11.58	12.00	12.10	12.50	13.07	14.50	14.93	15.02	15.42	15.99
12H	4H	9.89	10.46	10.37	10.94	11.42	13.72	14.30	14.21	14.78	15.25
	6H	10.88	11.35	11.40	11.87	12.36	14.08	14.55	14.60	15.07	15.56
	8H	11.42	11.84	11.93	12.33	12.91	14.33	14.76	14.85	15.25	15.82