

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: P1059694

Luminaire Tested: S123RDR-H560D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059694
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D927-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

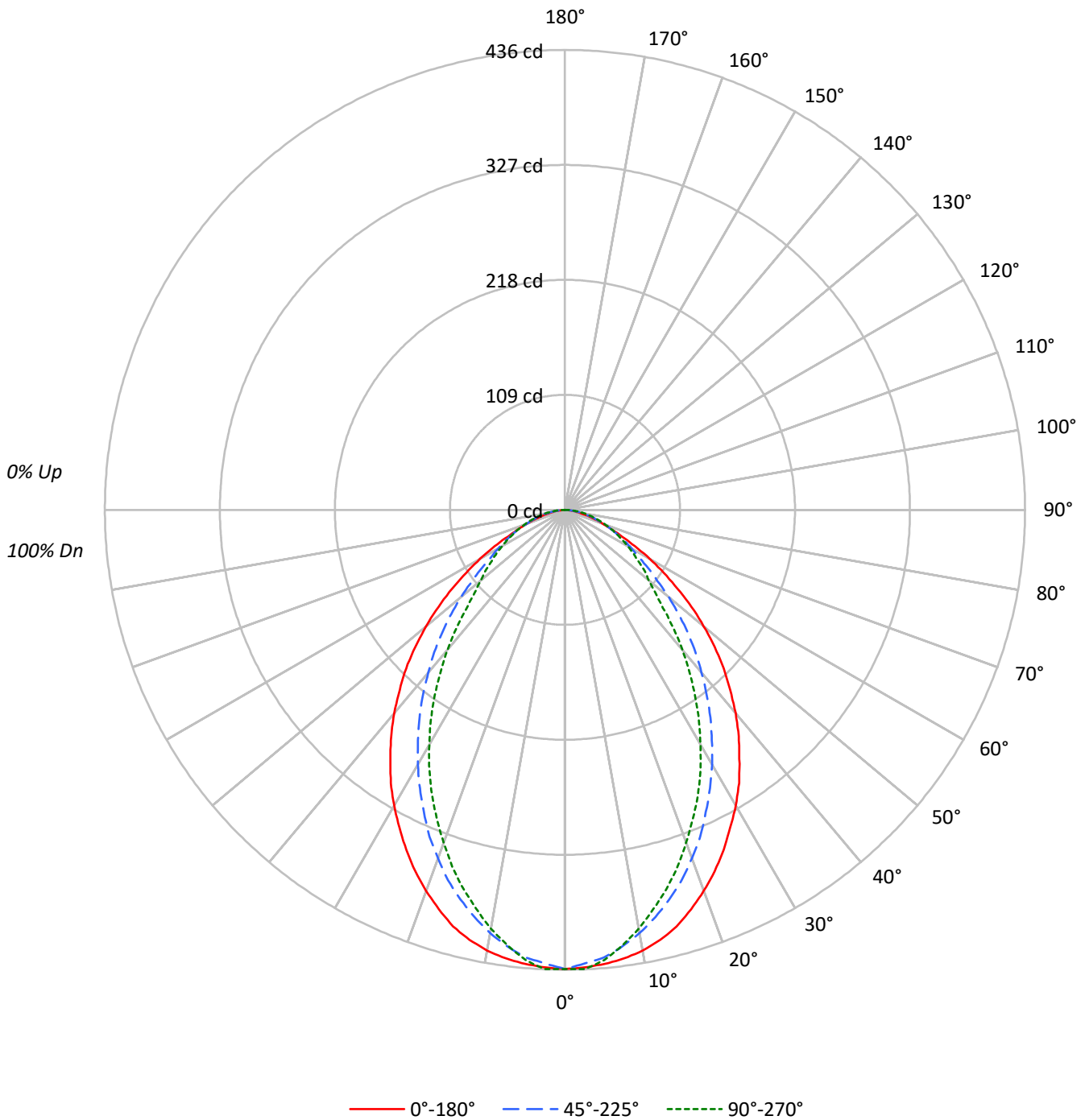
Lumens per Lamp: N/A
Luminaire Lumens: 761.2 lumens
Efficiency: N/A
Efficacy: 43.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
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	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5111	5111	5111
5°	5093	5019	5051
10°	5059	4859	4809
15°	4973	4649	4522
20°	4805	4392	4197
25°	4609	4094	3864
30°	4390	3780	3483
35°	4131	3442	3082
40°	3857	3087	2655
45°	3535	2728	2180
50°	3135	2342	1893
55°	2668	1959	1734
60°	2175	1707	1609
65°	1656	1512	1498
70°	1294	1346	1401
75°	1043	1211	1307
80°	778	987	1204
85°	418	633	1051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3535 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	5.3
10°-20°	108.7	14.3
20°-30°	147.8	19.4
30°-40°	153.2	20.1
40°-50°	129.2	17.0
50°-60°	91.7	12.0
60°-70°	56.1	7.4
70°-80°	27.9	3.7
80°-90°	6.3	0.8
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°	296.9	39.0
0°-40°	450.1	59.1
0°-60°	671.0	88.1
0°-90°	761.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	761.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	435	435	435	435	435	
5°	432	432	426	428	428	41
15°	409	401	382	376	372	115
25°	356	340	316	304	298	164
35°	288	266	240	223	215	180
45°	213	190	164	142	131	163
55°	130	117	96	87	85	117
65°	60	58	54	54	54	61
75°	23	25	27	28	29	25
85°	3	4	5	7	8	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	435.3	435.3	435.3	435.3	435.3
2.5°	434.2	434.7	430.5	435.3	435.8
5°	432.1	432.1	425.8	428.5	428.5
7.5°	429.0	427.9	417.5	417.5	416.4
10°	424.3	421.1	407.5	404.9	403.3
12.5°	417.5	412.2	395.5	390.8	387.6
15°	409.1	401.2	382.4	375.6	372.0
17.5°	397.1	389.2	368.3	358.9	354.7
20°	384.5	373.0	351.5	342.1	335.9
22.5°	370.9	356.3	335.3	323.8	317.0
25°	355.7	340.0	316.0	304.5	298.2
27.5°	339.5	322.3	297.7	284.6	278.3
30°	323.8	303.9	278.8	264.2	256.9
32.5°	307.1	284.6	259.0	243.8	236.5
35°	288.2	266.3	240.1	223.4	215.0
37.5°	270.5	248.0	220.8	203.0	193.6
40°	251.6	229.1	201.4	183.1	173.2
42.5°	231.8	210.3	183.1	161.6	152.2
45°	212.9	190.4	164.3	141.8	131.3
47.5°	192.5	171.6	146.0	122.9	115.6
50°	171.6	152.2	128.2	107.2	103.6
52.5°	151.2	135.0	110.4	96.8	95.2
55°	130.3	116.7	95.7	87.4	84.7
57.5°	110.9	101.0	82.1	77.9	76.9
60°	92.6	84.2	72.7	70.1	68.5
62.5°	74.8	70.1	63.3	62.3	61.2
65°	59.6	57.5	54.4	54.4	53.9
67.5°	47.1	47.1	46.6	47.6	47.1
70°	37.7	38.2	39.2	40.3	40.8
72.5°	29.8	31.4	32.4	34.0	34.5
75°	23.0	24.6	26.7	27.7	28.8
77.5°	16.7	18.3	20.4	22.0	23.0
80°	11.5	12.6	14.6	16.7	17.8
82.5°	7.3	7.8	9.4	11.5	12.6
85°	3.1	3.7	4.7	6.8	7.8
87.5°	0.0	0.0	0.5	2.1	3.7
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	14.48	15.93	14.84	16.24	16.56	12.57	14.02	12.94	14.33	14.65
	3H	15.38	16.67	15.75	17.00	17.36	14.15	15.44	14.52	15.77	16.13
	4H	15.66	16.87	16.06	17.22	17.60	14.74	15.95	15.14	16.30	16.68
	6H	15.81	16.92	16.22	17.29	17.69	15.19	16.31	15.60	16.68	17.07
	8H	15.83	16.89	16.26	17.28	17.69	15.34	16.40	15.77	16.79	17.20
	12H	15.82	16.84	16.25	17.22	17.65	15.44	16.46	15.87	16.84	17.27
4H	2H	14.72	15.93	15.12	16.28	16.66	13.11	14.32	13.51	14.67	15.05
	3H	15.84	16.84	16.25	17.24	17.64	14.89	15.89	15.30	16.29	16.69
	4H	16.23	17.12	16.66	17.54	17.98	15.60	16.50	16.03	16.91	17.35
	6H	16.47	17.25	16.93	17.69	18.15	16.17	16.95	16.63	17.39	17.86
	8H	16.51	17.24	16.97	17.68	18.15	16.36	17.09	16.83	17.54	18.00
	12H	16.52	17.16	17.00	17.64	18.12	16.50	17.15	16.99	17.63	18.10
8H	4H	16.38	17.11	16.85	17.56	18.02	15.81	16.54	16.27	16.98	17.45
	6H	16.70	17.29	17.19	17.79	18.27	16.48	17.08	16.98	17.58	18.05
	8H	16.77	17.31	17.29	17.82	18.31	16.74	17.28	17.26	17.79	18.28
	12H	16.81	17.28	17.32	17.77	18.34	16.95	17.42	17.46	17.92	18.48
12H	4H	16.39	17.03	16.87	17.51	17.99	15.81	16.45	16.29	16.93	17.41
	6H	16.71	17.25	17.23	17.76	18.25	16.49	17.03	17.01	17.54	18.03
	8H	16.82	17.30	17.34	17.79	18.36	16.80	17.27	17.31	17.76	18.33