

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: P1059688

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059688
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D927-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

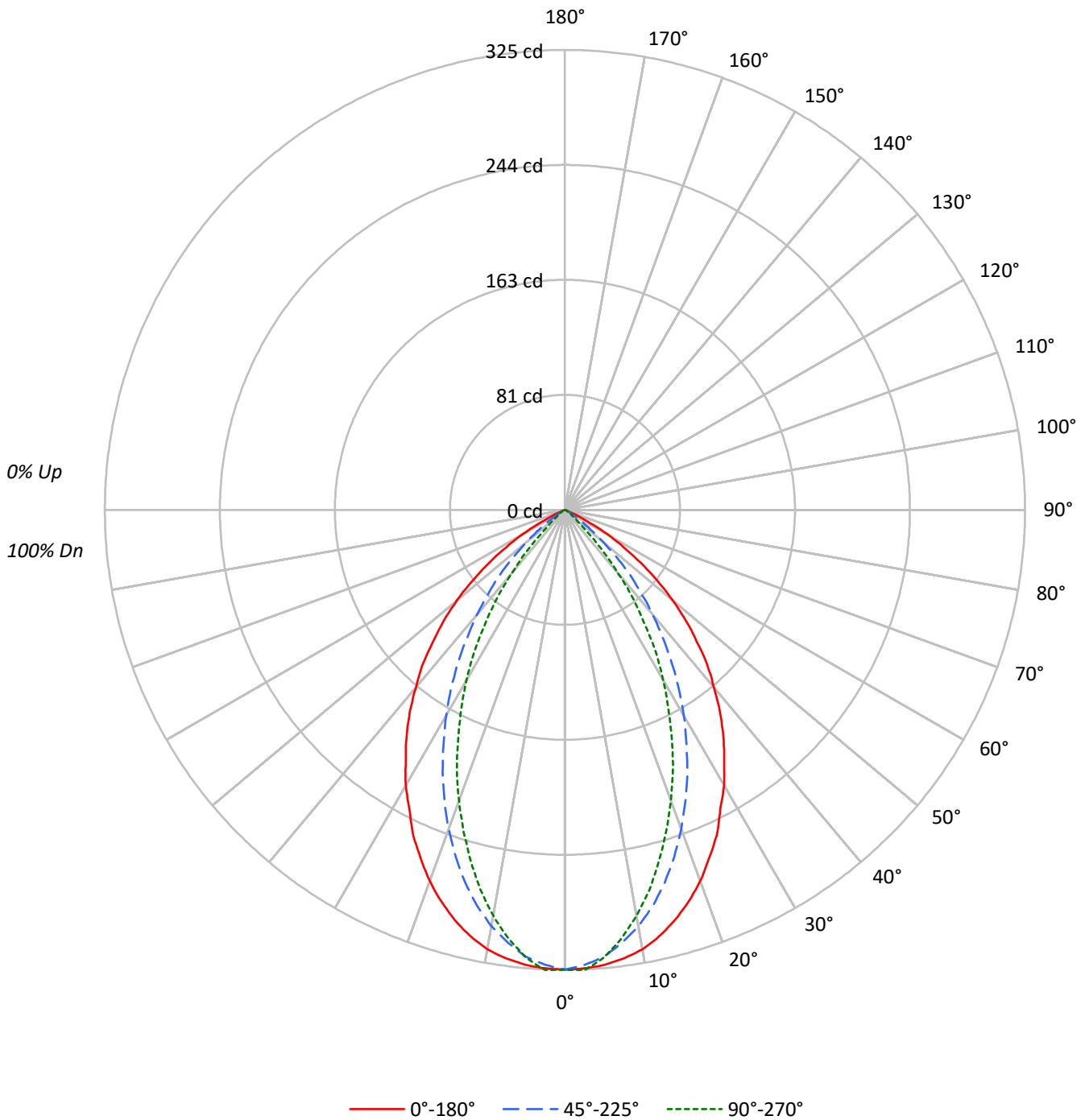
Lumens per Lamp: N/A
Luminaire Lumens: 370.7 lumens
Efficiency: N/A
Efficacy: 21.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3815	3815	3815
5°	3805	3737	3742
10°	3761	3562	3475
15°	3651	3313	3122
20°	3490	3000	2733
25°	3287	2650	2311
30°	3049	2277	1886
35°	2797	1882	1402
40°	2509	1476	898
45°	2189	1078	374
50°	1816	639	142
55°	1339	268	106
60°	810	99	61
65°	217	58	28
70°	0	17	17
75°	0	0	23
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2189 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.9	8.1
10°-20°	77.2	20.8
20°-30°	96.2	25.9
30°-40°	86.0	23.2
40°-50°	54.3	14.6
50°-60°	22.7	6.1
60°-70°	4.3	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	203.3	54.8
0°-40°	289.3	78.0
0°-60°	366.3	98.8
0°-90°	370.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	370.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	325	325	325	325	325	
5°	323	322	317	318	318	31
15°	300	293	272	261	257	84
25°	254	233	204	187	178	116
35°	195	167	131	108	98	122
45°	132	102	65	34	22	102
55°	65	45	13	5	5	59
65°	8	6	2	1	1	11
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	324.9	324.9	324.9	324.9	324.9
2.5°	324.3	324.9	321.7	324.9	325.4
5°	322.8	322.2	317.0	318.0	317.5
7.5°	319.6	318.0	308.6	306.5	305.5
10°	315.4	311.2	298.7	293.5	291.4
12.5°	308.6	302.9	286.7	278.3	275.2
15°	300.3	292.9	272.5	261.0	256.8
17.5°	290.3	279.9	256.8	244.3	238.0
20°	279.3	264.7	240.1	224.9	218.7
22.5°	266.3	250.0	222.3	206.1	199.3
25°	253.7	233.3	204.5	186.7	178.4
27.5°	238.0	216.6	185.7	167.4	158.5
30°	224.9	200.4	167.9	147.5	139.1
32.5°	209.2	183.6	149.6	127.1	119.3
35°	195.1	166.9	131.3	107.8	97.8
37.5°	179.9	150.7	113.0	88.4	79.0
40°	163.7	134.4	96.3	69.1	58.6
42.5°	149.1	118.2	79.5	51.3	40.8
45°	131.8	102.5	64.9	34.5	22.5
47.5°	116.1	87.9	49.2	19.4	12.0
50°	99.4	72.7	35.0	9.9	7.8
52.5°	82.1	58.1	23.0	6.8	6.3
55°	65.4	45.0	13.1	5.2	5.2
57.5°	49.2	32.4	6.8	4.2	3.7
60°	34.5	21.4	4.2	3.1	2.6
62.5°	19.9	12.6	3.1	2.1	2.1
65°	7.8	5.8	2.1	1.0	1.0
67.5°	0.5	1.6	1.0	0.5	0.5
70°	0.0	0.0	0.5	0.5	0.5
72.5°	0.0	0.0	0.5	0.5	0.5
75°	0.0	0.0	0.0	0.0	0.5
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	9.84	11.01	10.20	11.33	11.64	0.00	0.00	0.00	0.00	0.00
	3H	9.68	10.71	10.06	11.04	11.41	0.00	0.00	0.00	0.00	0.00
	4H	9.59	10.55	10.00	10.90	11.28	0.00	0.00	0.00	0.00	0.00
	6H	9.50	10.37	9.92	10.74	11.14	0.00	0.00	0.00	0.00	0.00
	8H	9.45	10.27	9.88	10.66	11.07	0.00	0.00	0.00	0.00	0.00
	12H	9.40	10.18	9.83	10.57	11.00	0.00	0.00	0.00	0.00	0.00
4H	2H	9.60	10.55	10.00	10.90	11.29	0.00	0.00	0.00	0.00	0.00
	3H	9.43	10.20	9.85	10.61	11.01	0.00	0.00	0.00	0.00	0.00
	4H	9.33	10.01	9.76	10.43	10.88	0.00	0.00	0.00	0.00	0.00
	6H	9.23	9.81	9.70	10.26	10.73	0.00	0.00	0.00	0.00	0.00
	8H	9.17	9.71	9.64	10.16	10.63	0.00	0.00	0.00	0.00	0.00
	12H	9.11	9.58	9.60	10.07	10.55	0.00	0.00	0.00	0.00	0.00
8H	4H	9.17	9.71	9.64	10.16	10.63	0.00	0.00	0.00	0.00	0.00
	6H	9.05	9.49	9.56	9.99	10.47	0.00	0.00	0.00	0.00	0.00
	8H	8.98	9.37	9.50	9.89	10.39	0.00	0.00	0.00	0.00	0.00
	12H	8.92	9.27	9.44	9.77	10.35	0.00	0.00	0.00	0.00	0.00
12H	4H	9.11	9.58	9.60	10.07	10.55	0.00	0.00	0.00	0.00	0.00
	6H	8.98	9.37	9.51	9.89	10.39	0.00	0.00	0.00	0.00	0.00
	8H	8.92	9.27	9.44	9.77	10.35	0.00	0.00	0.00	0.00	0.00