

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: P1059574

Luminaire Tested: S123RDR-H340D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059574
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

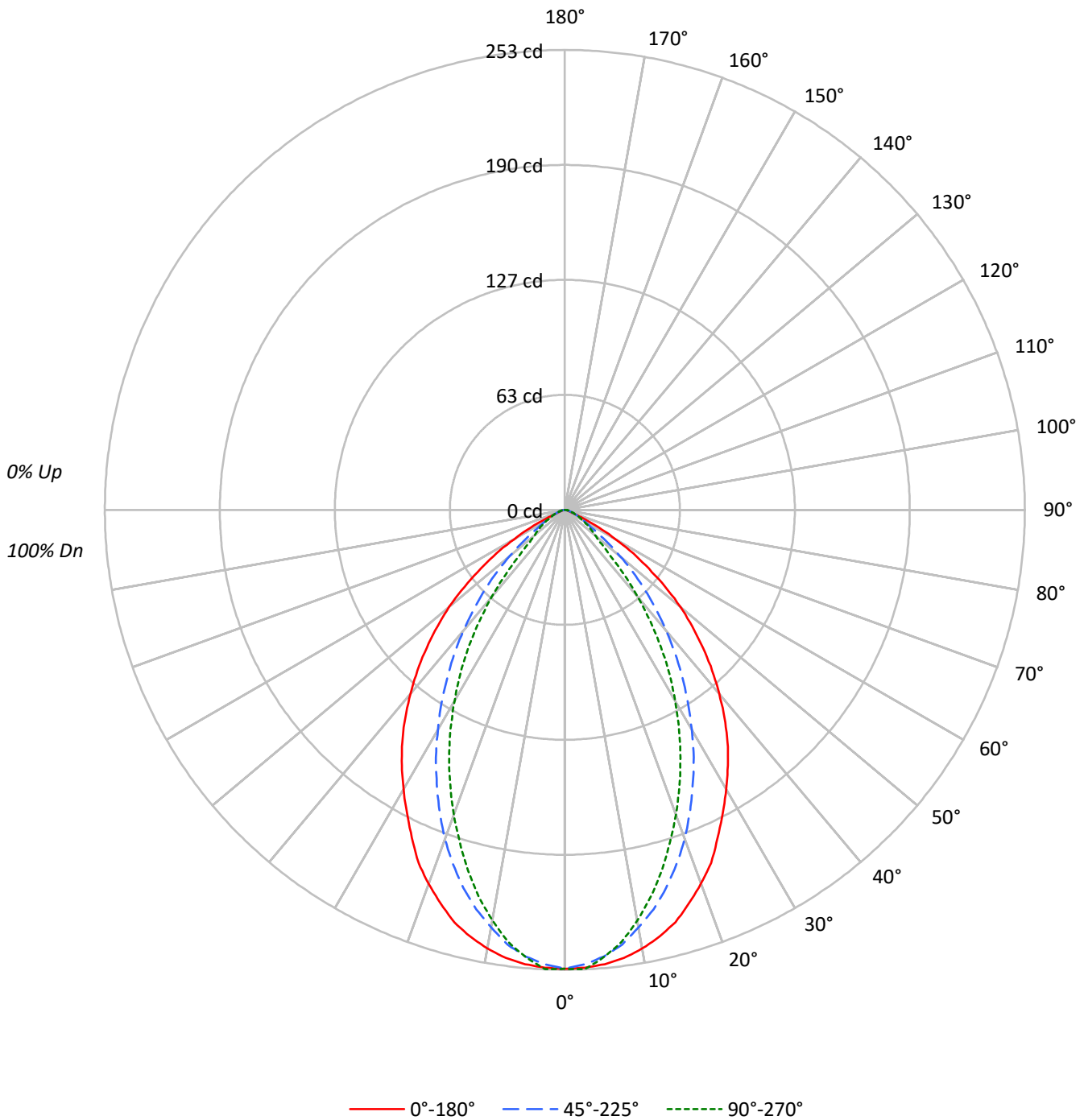
Lumens per Lamp: N/A
Luminaire Lumens: 326.0 lumens
Efficiency: N/A
Efficacy: 27.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2965	2965	2965
5°	2957	2907	2911
10°	2922	2782	2735
15°	2856	2619	2499
20°	2735	2408	2232
25°	2577	2157	1950
30°	2407	1891	1643
35°	2236	1614	1322
40°	2025	1331	958
45°	1785	1031	578
50°	1514	722	393
55°	1153	432	328
60°	754	275	256
65°	314	206	206
70°	106	148	161
75°	91	104	122
80°	54	81	108
85°	54	54	108

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1785 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	7.2
10°-20°	61.0	18.7
20°-30°	78.3	24.0
30°-40°	73.4	22.5
40°-50°	51.2	15.7
50°-60°	26.5	8.1
60°-70°	9.1	2.8
70°-80°	2.6	0.8
80°-90°	0.6	0.2
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°	162.6	49.9
0°-40°	236.0	72.4
0°-60°	313.8	96.3
0°-90°	326.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	326.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	251	250	247	248	247	24
15°	235	229	215	208	206	66
25°	199	186	166	155	150	91
35°	156	137	113	98	92	97
45°	108	88	62	43	35	83
55°	56	42	21	16	16	51
65°	11	10	7	7	7	13
75°	2	2	2	3	3	2
85°	0	0	0	0	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	252.5	252.5	252.5	252.5	252.5
2.5°	252.1	252.5	250.2	252.5	252.9
5°	250.9	250.5	246.6	247.8	247.0
7.5°	248.6	247.4	241.2	239.6	239.6
10°	245.1	242.7	233.3	230.6	229.4
12.5°	240.4	237.3	225.1	220.1	218.1
15°	234.9	229.0	215.4	208.3	205.6
17.5°	227.1	219.3	204.4	196.2	191.9
20°	218.9	209.1	192.7	182.9	178.6
22.5°	210.3	198.6	179.8	169.2	164.6
25°	198.9	186.4	166.5	155.2	150.5
27.5°	188.0	174.7	153.6	140.7	136.0
30°	177.5	161.8	139.5	127.0	121.2
32.5°	166.9	149.3	126.2	112.6	107.1
35°	156.0	136.8	112.6	98.1	92.2
37.5°	144.2	124.7	99.7	84.0	77.0
40°	132.1	111.8	86.8	69.2	62.5
42.5°	120.0	100.1	73.9	55.9	48.1
45°	107.5	87.9	62.1	43.0	34.8
47.5°	95.0	75.8	50.8	31.3	26.2
50°	82.9	64.5	39.5	23.1	21.5
52.5°	69.6	53.5	29.7	19.2	18.8
55°	56.3	42.2	21.1	16.4	16.0
57.5°	44.6	32.8	15.2	13.7	13.3
60°	32.1	23.5	11.7	11.3	10.9
62.5°	21.1	16.0	9.4	9.0	9.0
65°	11.3	9.8	7.4	7.0	7.4
67.5°	4.7	5.5	5.5	5.9	5.9
70°	3.1	3.5	4.3	4.7	4.7
72.5°	2.3	2.7	3.1	3.5	3.5
75°	2.0	2.0	2.3	2.7	2.7
77.5°	1.2	1.6	1.6	2.0	2.3
80°	0.8	1.2	1.2	1.6	1.6
82.5°	0.4	0.8	0.8	1.2	1.2
85°	0.4	0.4	0.4	0.4	0.8
87.5°	0.0	0.0	0.0	0.0	0.4
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	10.11	11.37	10.47	11.68	11.99	3.62	4.88	3.99	5.19	5.51
	3H	10.06	11.17	10.44	11.50	11.86	4.40	5.51	4.78	5.84	6.21
	4H	10.01	11.04	10.41	11.39	11.77	4.60	5.63	5.00	5.98	6.36
	6H	9.94	10.88	10.35	11.25	11.65	4.74	5.68	5.16	6.06	6.45
	8H	9.89	10.79	10.33	11.18	11.58	4.78	5.67	5.21	6.06	6.47
	12H	9.85	10.70	10.28	11.09	11.52	4.80	5.65	5.23	6.04	6.47
4H	2H	9.95	10.98	10.36	11.33	11.72	3.87	4.90	4.28	5.26	5.64
	3H	9.94	10.77	10.35	11.18	11.58	4.79	5.62	5.20	6.03	6.43
	4H	9.89	10.63	10.32	11.05	11.49	5.05	5.79	5.49	6.21	6.66
	6H	9.83	10.47	10.30	10.92	11.38	5.27	5.91	5.74	6.36	6.83
	8H	9.78	10.37	10.25	10.82	11.29	5.34	5.93	5.81	6.38	6.85
	12H	9.73	10.26	10.22	10.74	11.22	5.38	5.90	5.87	6.39	6.86
8H	4H	9.77	10.37	10.24	10.82	11.29	5.04	5.63	5.51	6.08	6.55
	6H	9.71	10.20	10.22	10.69	11.18	5.31	5.80	5.82	6.30	6.78
	8H	9.66	10.10	10.19	10.62	11.11	5.43	5.86	5.95	6.38	6.87
	12H	9.63	10.01	10.14	10.51	11.08	5.51	5.89	6.02	6.39	6.96
12H	4H	9.73	10.25	10.22	10.74	11.21	5.00	5.52	5.49	6.01	6.48
	6H	9.66	10.09	10.18	10.61	11.10	5.28	5.71	5.80	6.23	6.72
	8H	9.63	10.01	10.14	10.51	11.08	5.42	5.81	5.94	6.30	6.88