

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059049

Luminaire Tested: S123RDRP-S1000D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059049
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: S123RDRP-S1000D930-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

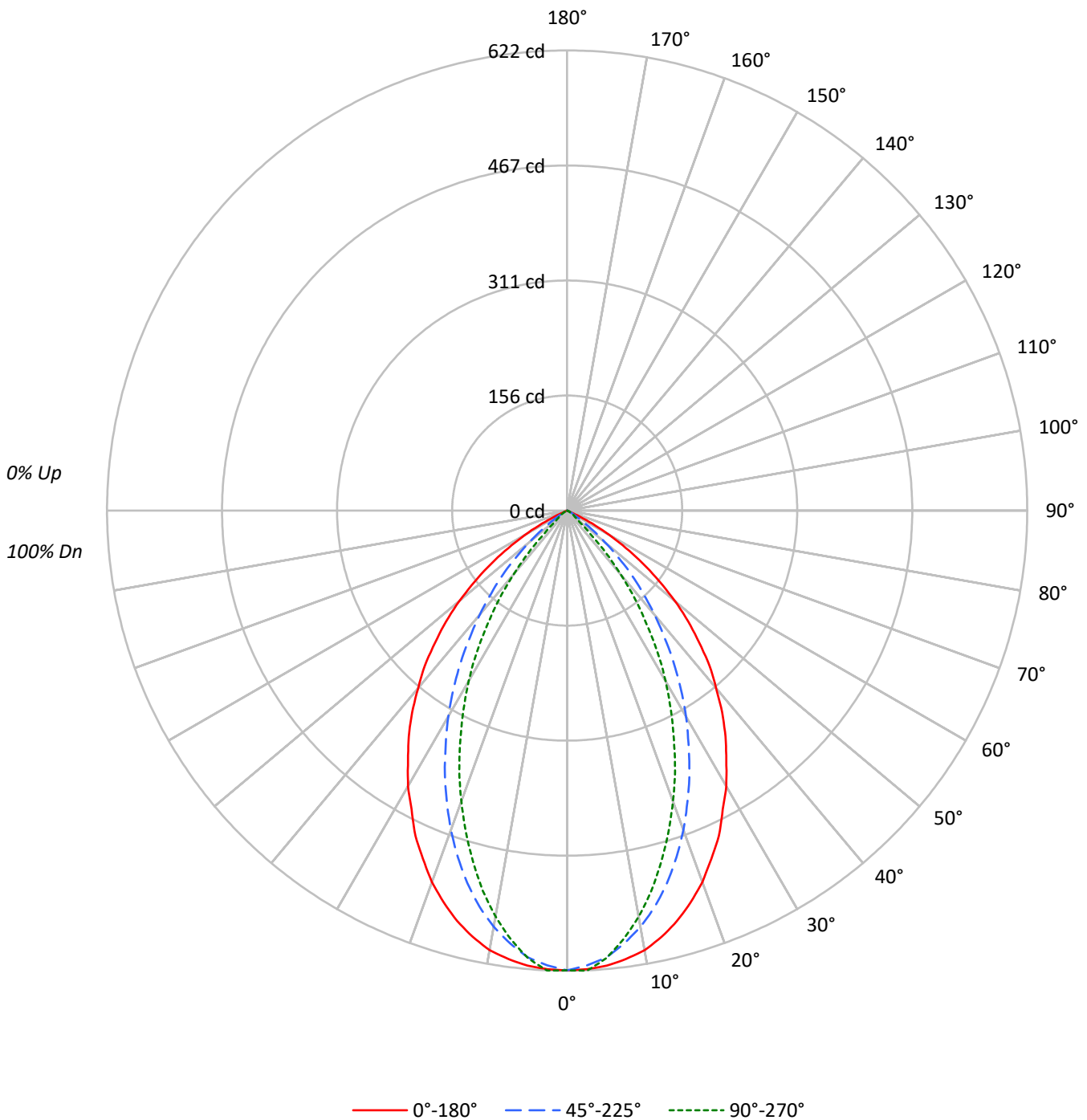
Lumens per Lamp: N/A
Luminaire Lumens: 709.0 lumens
Efficiency: N/A
Efficacy: 20.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7297	7297	7297
5°	7277	7147	7158
10°	7193	6812	6645
15°	6982	6337	5973
20°	6677	5739	5226
25°	6288	5069	4421
30°	5833	4355	3609
35°	5350	3599	2682
40°	4801	2822	1718
45°	4186	2061	714
50°	3473	1224	274
55°	2561	512	205
60°	1550	188	117
65°	417	111	56
70°	0	34	34
75°	0	0	45
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4186 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.2	8.1
10°-20°	147.6	20.8
20°-30°	184.0	25.9
30°-40°	164.5	23.2
40°-50°	103.8	14.6
50°-60°	43.4	6.1
60°-70°	8.2	1.2
70°-80°	0.3	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°	388.8	54.8
0°-40°	553.3	78.0
0°-60°	700.6	98.8
0°-90°	709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	621	621	621	621	621	
5°	617	616	606	608	607	58
15°	574	560	521	499	491	161
25°	485	446	391	357	341	222
35°	373	319	251	206	187	232
45°	252	196	124	66	43	194
55°	125	86	25	10	10	112
65°	15	11	4	2	2	21
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	621.4	621.4	621.4	621.4	621.4
2.5°	620.4	621.4	615.4	621.4	622.4
5°	617.4	616.4	606.3	608.3	607.3
7.5°	611.3	608.3	590.3	586.3	584.3
10°	603.3	595.3	571.3	561.3	557.3
12.5°	590.3	579.3	548.3	532.3	526.3
15°	574.3	560.3	521.3	499.3	491.3
17.5°	555.3	535.3	491.3	467.3	455.3
20°	534.3	506.3	459.3	430.2	418.2
22.5°	509.3	478.3	425.2	394.2	381.2
25°	485.3	446.3	391.2	357.2	341.2
27.5°	455.3	414.2	355.2	320.2	303.2
30°	430.2	383.2	321.2	282.2	266.2
32.5°	400.2	351.2	286.2	243.1	228.1
35°	373.2	319.2	251.1	206.1	187.1
37.5°	344.2	288.2	216.1	169.1	151.1
40°	313.2	257.1	184.1	132.1	112.1
42.5°	285.2	226.1	152.1	98.1	78.0
45°	252.1	196.1	124.1	66.0	43.0
47.5°	222.1	168.1	94.1	37.0	23.0
50°	190.1	139.1	67.0	19.0	15.0
52.5°	157.1	111.1	44.0	13.0	12.0
55°	125.1	86.0	25.0	10.0	10.0
57.5°	94.1	62.0	13.0	8.0	7.0
60°	66.0	41.0	8.0	6.0	5.0
62.5°	38.0	24.0	6.0	4.0	4.0
65°	15.0	11.0	4.0	2.0	2.0
67.5°	1.0	3.0	2.0	1.0	1.0
70°	0.0	0.0	1.0	1.0	1.0
72.5°	0.0	0.0	1.0	1.0	1.0
75°	0.0	0.0	0.0	0.0	1.0
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	12.09	13.27	12.46	13.58	13.90	0.00	0.00	0.00	0.00	0.00
	3H	11.93	12.96	12.31	13.30	13.66	0.00	0.00	0.00	0.00	0.00
	4H	11.85	12.80	12.25	13.15	13.54	0.00	0.00	0.00	0.00	0.00
	6H	11.75	12.63	12.17	13.00	13.40	0.00	0.00	0.00	0.00	0.00
	8H	11.71	12.53	12.14	12.92	13.33	0.00	0.00	0.00	0.00	0.00
	12H	11.65	12.44	12.09	12.82	13.25	0.00	0.00	0.00	0.00	0.00
4H	2H	11.85	12.81	12.26	13.16	13.55	0.00	0.00	0.00	0.00	0.00
	3H	11.69	12.46	12.10	12.86	13.27	0.00	0.00	0.00	0.00	0.00
	4H	11.58	12.26	12.02	12.69	13.13	0.00	0.00	0.00	0.00	0.00
	6H	11.49	12.07	11.95	12.52	12.99	0.00	0.00	0.00	0.00	0.00
	8H	11.42	11.97	11.89	12.41	12.89	0.00	0.00	0.00	0.00	0.00
	12H	11.36	11.84	11.85	12.33	12.80	0.00	0.00	0.00	0.00	0.00
8H	4H	11.42	11.97	11.89	12.42	12.89	0.00	0.00	0.00	0.00	0.00
	6H	11.30	11.74	11.81	12.25	12.73	0.00	0.00	0.00	0.00	0.00
	8H	11.23	11.63	11.76	12.15	12.64	0.00	0.00	0.00	0.00	0.00
	12H	11.18	11.53	11.70	12.03	12.60	0.00	0.00	0.00	0.00	0.00
12H	4H	11.36	11.84	11.85	12.33	12.80	0.00	0.00	0.00	0.00	0.00
	6H	11.23	11.63	11.76	12.15	12.64	0.00	0.00	0.00	0.00	0.00
	8H	11.18	11.53	11.70	12.03	12.60	0.00	0.00	0.00	0.00	0.00