

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: P1059769

Luminaire Tested: S123RDR-H775D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059769
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-H775D927-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

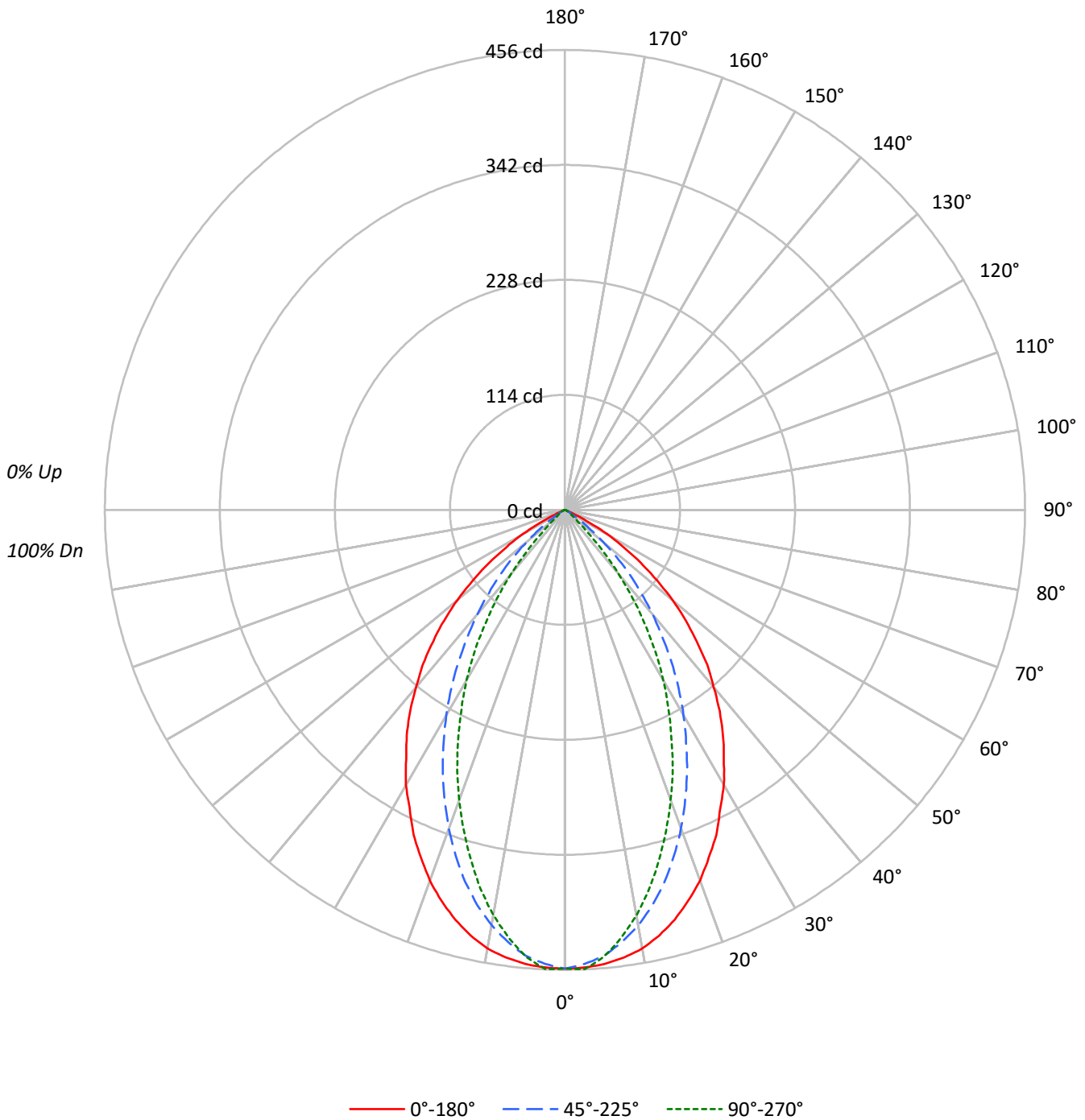
Lumens per Lamp: N/A
Luminaire Lumens: 519.1 lumens
Efficiency: N/A
Efficacy: 22.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	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°	5342	5342	5342
5°	5328	5234	5242
10°	5268	4988	4866
15°	5112	4640	4373
20°	4888	4202	3826
25°	4603	3711	3236
30°	4271	3189	2643
35°	3918	2636	1964
40°	3515	2066	1258
45°	3066	1508	523
50°	2543	897	201
55°	1875	375	149
60°	1137	139	87
65°	306	81	42
70°	0	24	24
75°	0	0	32
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3066 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.9	8.1
10°-20°	108.1	20.8
20°-30°	134.7	25.9
30°-40°	120.4	23.2
40°-50°	76.0	14.6
50°-60°	31.8	6.1
60°-70°	6.0	1.2
70°-80°	0.2	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°	284.7	54.8
0°-40°	405.1	78.0
0°-60°	512.9	98.8
0°-90°	519.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	519.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	455	455	455	455	455	
5°	452	451	444	445	445	43
15°	420	410	382	366	360	118
25°	355	327	286	262	250	163
35°	273	234	184	151	137	170
45°	185	144	91	48	32	142
55°	92	63	18	7	7	82
65°	11	8	3	2	2	15
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°	454.9	454.9	454.9	454.9	454.9
2.5°	454.2	454.9	450.6	454.9	455.7
5°	452.0	451.3	444.0	445.4	444.7
7.5°	447.6	445.4	432.2	429.3	427.8
10°	441.8	435.9	418.3	411.0	408.1
12.5°	432.2	424.2	401.5	389.7	385.4
15°	420.5	410.3	381.7	365.6	359.7
17.5°	406.6	391.9	359.7	342.1	333.3
20°	391.2	370.7	336.3	315.0	306.2
22.5°	372.9	350.2	311.4	288.6	279.1
25°	355.3	326.7	286.4	261.5	249.8
27.5°	333.3	303.3	260.1	234.4	222.0
30°	315.0	280.6	235.2	206.6	194.9
32.5°	293.0	257.1	209.5	178.0	167.0
35°	273.3	233.7	183.9	150.9	137.0
37.5°	252.0	211.0	158.2	123.8	110.6
40°	229.3	188.3	134.8	96.7	82.1
42.5°	208.8	165.6	111.4	71.8	57.1
45°	184.6	143.6	90.8	48.4	31.5
47.5°	162.6	123.1	68.9	27.1	16.8
50°	139.2	101.8	49.1	13.9	11.0
52.5°	115.0	81.3	32.2	9.5	8.8
55°	91.6	63.0	18.3	7.3	7.3
57.5°	68.9	45.4	9.5	5.9	5.1
60°	48.4	30.0	5.9	4.4	3.7
62.5°	27.8	17.6	4.4	2.9	2.9
65°	11.0	8.1	2.9	1.5	1.5
67.5°	0.7	2.2	1.5	0.7	0.7
70°	0.0	0.0	0.7	0.7	0.7
72.5°	0.0	0.0	0.7	0.7	0.7
75°	0.0	0.0	0.0	0.0	0.7
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	11.01	12.19	11.38	12.50	12.81	0.00	0.00	0.00	0.00	0.00
	3H	10.85	11.88	11.23	12.21	12.58	0.00	0.00	0.00	0.00	0.00
	4H	10.77	11.72	11.17	12.07	12.46	0.00	0.00	0.00	0.00	0.00
	6H	10.67	11.54	11.09	11.92	12.31	0.00	0.00	0.00	0.00	0.00
	8H	10.62	11.44	11.06	11.84	12.24	0.00	0.00	0.00	0.00	0.00
	12H	10.57	11.36	11.01	11.74	12.17	0.00	0.00	0.00	0.00	0.00
4H	2H	10.77	11.72	11.17	12.08	12.46	0.00	0.00	0.00	0.00	0.00
	3H	10.60	11.37	11.02	11.78	12.18	0.00	0.00	0.00	0.00	0.00
	4H	10.50	11.18	10.94	11.60	12.05	0.00	0.00	0.00	0.00	0.00
	6H	10.40	10.99	10.87	11.44	11.91	0.00	0.00	0.00	0.00	0.00
	8H	10.34	10.88	10.81	11.33	11.81	0.00	0.00	0.00	0.00	0.00
	12H	10.28	10.76	10.77	11.24	11.72	0.00	0.00	0.00	0.00	0.00
8H	4H	10.34	10.88	10.81	11.33	11.81	0.00	0.00	0.00	0.00	0.00
	6H	10.22	10.66	10.73	11.16	11.65	0.00	0.00	0.00	0.00	0.00
	8H	10.15	10.55	10.68	11.07	11.56	0.00	0.00	0.00	0.00	0.00
	12H	10.10	10.45	10.61	10.94	11.52	0.00	0.00	0.00	0.00	0.00
12H	4H	10.28	10.76	10.77	11.24	11.72	0.00	0.00	0.00	0.00	0.00
	6H	10.15	10.55	10.68	11.07	11.56	0.00	0.00	0.00	0.00	0.00
	8H	10.10	10.45	10.61	10.94	11.52	0.00	0.00	0.00	0.00	0.00