

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: P1059787

Luminaire Tested: S123RDR-H775D935-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059787
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-H775D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

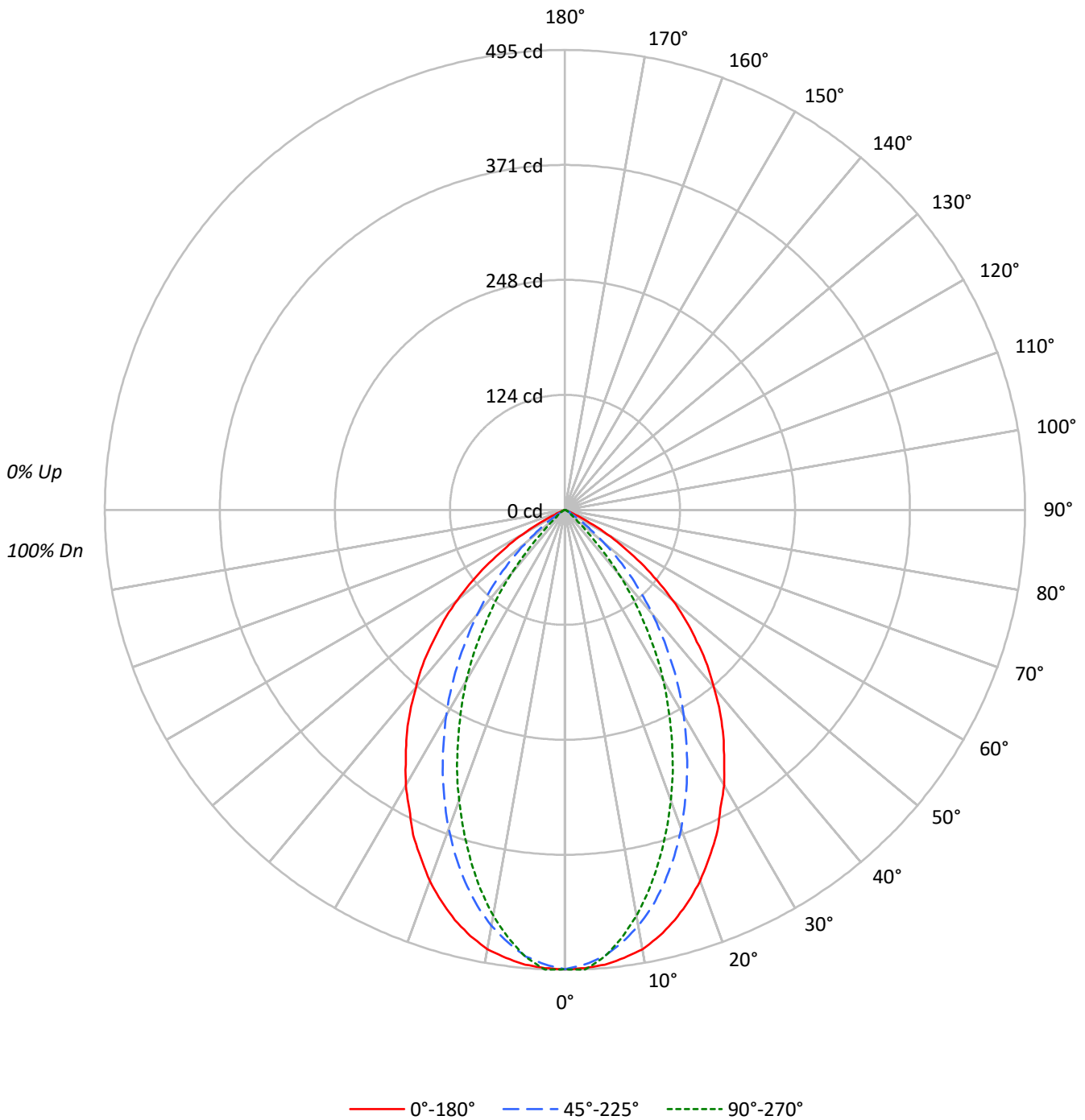
Lumens per Lamp: N/A
Luminaire Lumens: 564.3 lumens
Efficiency: N/A
Efficacy: 24.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	5807	5807	5807
5°	5791	5687	5697
10°	5725	5422	5288
15°	5556	5043	4753
20°	5313	4567	4159
25°	5004	4033	3518
30°	4643	3466	2872
35°	4257	2866	2134
40°	3820	2246	1367
45°	3333	1639	568
50°	2764	974	217
55°	2037	407	164
60°	1235	150	94
65°	331	89	44
70°	0	27	27
75°	0	0	36
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3333 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	8.1
10°-20°	117.5	20.8
20°-30°	146.4	25.9
30°-40°	130.9	23.2
40°-50°	82.6	14.6
50°-60°	34.6	6.1
60°-70°	6.5	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°	309.4	54.8
0°-40°	440.3	78.0
0°-60°	557.5	98.8
0°-90°	564.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	564.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	491	490	482	484	483	47
15°	457	446	415	397	391	128
25°	386	355	311	284	272	177
35°	297	254	200	164	149	185
45°	201	156	99	53	34	155
55°	100	68	20	8	8	89
65°	12	9	3	2	2	17
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°	494.5	494.5	494.5	494.5	494.5
2.5°	493.7	494.5	489.7	494.5	495.3
5°	491.3	490.5	482.5	484.1	483.3
7.5°	486.5	484.1	469.8	466.6	465.0
10°	480.1	473.8	454.7	446.7	443.5
12.5°	469.8	461.0	436.3	423.6	418.8
15°	457.0	445.9	414.8	397.3	391.0
17.5°	441.9	426.0	391.0	371.8	362.3
20°	425.2	402.9	365.5	342.4	332.8
22.5°	405.3	380.6	338.4	313.7	303.4
25°	386.2	355.1	311.3	284.3	271.5
27.5°	362.3	329.6	282.7	254.8	241.3
30°	342.4	305.0	255.6	224.5	211.8
32.5°	318.5	279.5	227.7	193.5	181.5
35°	297.0	254.0	199.9	164.0	148.9
37.5°	273.9	229.3	172.0	134.6	120.2
40°	249.2	204.6	146.5	105.1	89.2
42.5°	226.9	180.0	121.0	78.0	62.1
45°	200.7	156.1	98.7	52.6	34.2
47.5°	176.8	133.8	74.8	29.5	18.3
50°	151.3	110.7	53.3	15.1	11.9
52.5°	125.0	88.4	35.0	10.4	9.6
55°	99.5	68.5	19.9	8.0	8.0
57.5°	74.8	49.4	10.4	6.4	5.6
60°	52.6	32.6	6.4	4.8	4.0
62.5°	30.3	19.1	4.8	3.2	3.2
65°	11.9	8.8	3.2	1.6	1.6
67.5°	0.8	2.4	1.6	0.8	0.8
70°	0.0	0.0	0.8	0.8	0.8
72.5°	0.0	0.0	0.8	0.8	0.8
75°	0.0	0.0	0.0	0.0	0.8
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	11.30	12.48	11.67	12.79	13.11	0.00	0.00	0.00	0.00	0.00
	3H	11.14	12.18	11.53	12.51	12.87	0.00	0.00	0.00	0.00	0.00
	4H	11.06	12.01	11.46	12.36	12.75	0.00	0.00	0.00	0.00	0.00
	6H	10.96	11.84	11.38	12.21	12.61	0.00	0.00	0.00	0.00	0.00
	8H	10.92	11.74	11.35	12.13	12.54	0.00	0.00	0.00	0.00	0.00
	12H	10.86	11.65	11.30	12.03	12.46	0.00	0.00	0.00	0.00	0.00
4H	2H	11.06	12.02	11.47	12.37	12.76	0.00	0.00	0.00	0.00	0.00
	3H	10.90	11.67	11.31	12.07	12.48	0.00	0.00	0.00	0.00	0.00
	4H	10.79	11.47	11.23	11.90	12.34	0.00	0.00	0.00	0.00	0.00
	6H	10.70	11.28	11.16	11.73	12.20	0.00	0.00	0.00	0.00	0.00
	8H	10.63	11.18	11.10	11.63	12.10	0.00	0.00	0.00	0.00	0.00
	12H	10.57	11.05	11.06	11.54	12.01	0.00	0.00	0.00	0.00	0.00
8H	4H	10.63	11.18	11.10	11.63	12.10	0.00	0.00	0.00	0.00	0.00
	6H	10.52	10.96	11.02	11.46	11.94	0.00	0.00	0.00	0.00	0.00
	8H	10.44	10.84	10.97	11.36	11.85	0.00	0.00	0.00	0.00	0.00
	12H	10.39	10.74	10.91	11.24	11.81	0.00	0.00	0.00	0.00	0.00
12H	4H	10.57	11.05	11.06	11.54	12.01	0.00	0.00	0.00	0.00	0.00
	6H	10.44	10.84	10.97	11.36	11.85	0.00	0.00	0.00	0.00	0.00
	8H	10.39	10.74	10.91	11.24	11.81	0.00	0.00	0.00	0.00	0.00