

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: P1059715

Luminaire Tested: S123RDRP-H560D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059715
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-H560D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

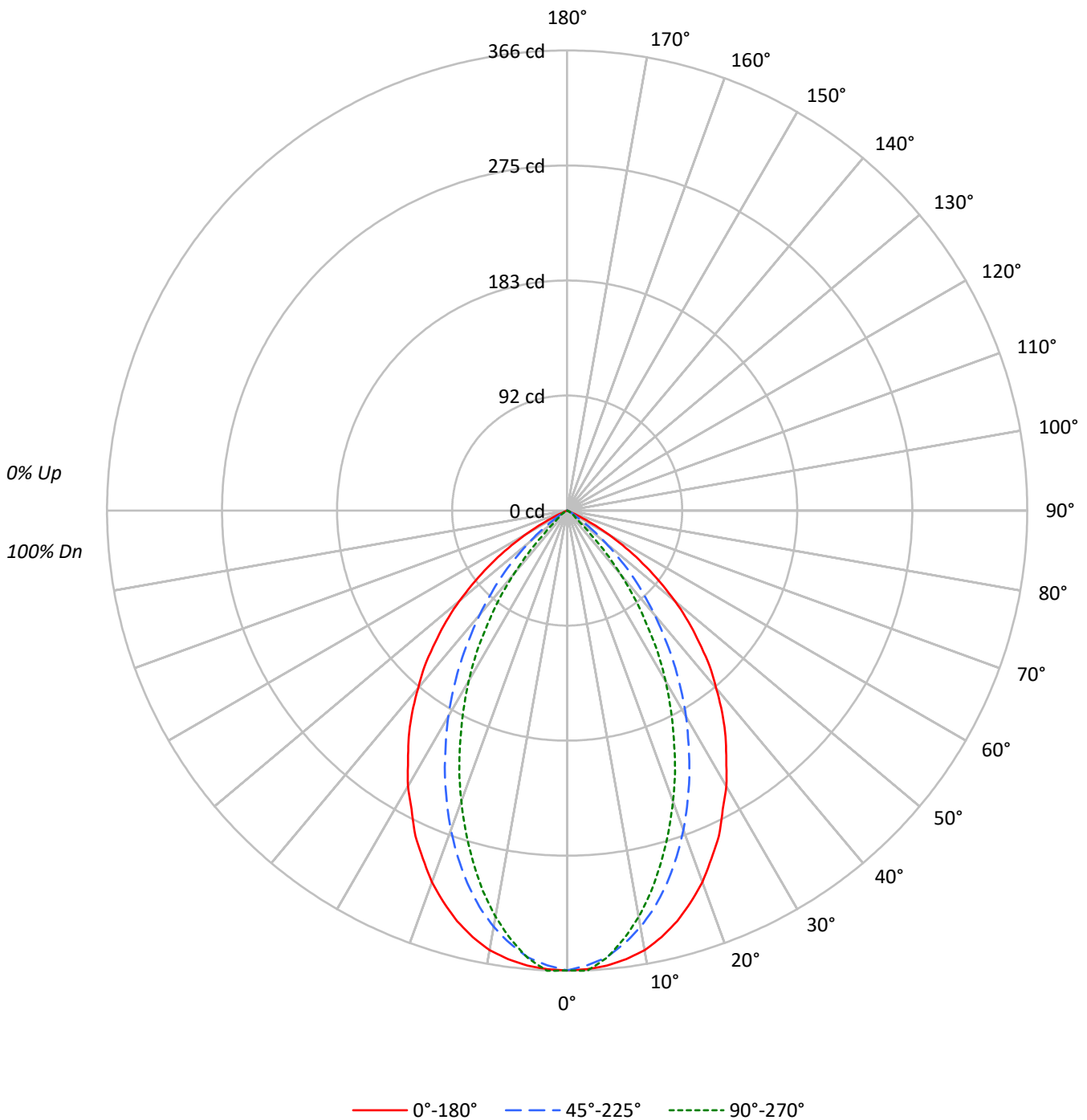
Lumens per Lamp: N/A
Luminaire Lumens: 417.3 lumens
Efficiency: N/A
Efficacy: 24.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4294	4294	4294
5°	4282	4206	4213
10°	4234	4009	3911
15°	4109	3730	3514
20°	3929	3378	3075
25°	3700	2983	2602
30°	3433	2563	2123
35°	3148	2119	1578
40°	2825	1660	1010
45°	2464	1212	420
50°	2044	722	161
55°	1507	301	121
60°	914	110	68
65°	245	67	33
70°	0	21	21
75°	0	0	27
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2464 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.7	8.1
10°-20°	86.9	20.8
20°-30°	108.3	25.9
30°-40°	96.8	23.2
40°-50°	61.1	14.6
50°-60°	25.6	6.1
60°-70°	4.8	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°	228.8	54.8
0°-40°	325.6	78.0
0°-60°	412.3	98.8
0°-90°	417.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	417.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	363	363	357	358	357	34
15°	338	330	307	294	289	95
25°	286	263	230	210	201	131
35°	220	188	148	121	110	137
45°	148	115	73	39	25	114
55°	74	51	15	6	6	66
65°	9	6	2	1	1	12
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°	365.7	365.7	365.7	365.7	365.7
2.5°	365.1	365.7	362.1	365.7	366.3
5°	363.3	362.7	356.8	358.0	357.4
7.5°	359.8	358.0	347.4	345.1	343.9
10°	355.1	350.4	336.2	330.3	328.0
12.5°	347.4	340.9	322.7	313.3	309.7
15°	338.0	329.7	306.8	293.8	289.1
17.5°	326.8	315.0	289.1	275.0	267.9
20°	314.4	297.9	270.3	253.2	246.1
22.5°	299.7	281.5	250.3	232.0	224.3
25°	285.6	262.6	230.2	210.2	200.8
27.5°	267.9	243.8	209.0	188.4	178.4
30°	253.2	225.5	189.0	166.1	156.6
32.5°	235.5	206.7	168.4	143.1	134.3
35°	219.6	187.8	147.8	121.3	110.1
37.5°	202.6	169.6	127.2	99.5	88.9
40°	184.3	151.3	108.3	77.7	65.9
42.5°	167.8	133.1	89.5	57.7	45.9
45°	148.4	115.4	73.0	38.9	25.3
47.5°	130.7	98.9	55.4	21.8	13.5
50°	111.9	81.8	39.5	11.2	8.8
52.5°	92.4	65.4	25.9	7.7	7.1
55°	73.6	50.6	14.7	5.9	5.9
57.5°	55.4	36.5	7.7	4.7	4.1
60°	38.9	24.1	4.7	3.5	2.9
62.5°	22.4	14.1	3.5	2.4	2.4
65°	8.8	6.5	2.4	1.2	1.2
67.5°	0.6	1.8	1.2	0.6	0.6
70°	0.0	0.0	0.6	0.6	0.6
72.5°	0.0	0.0	0.6	0.6	0.6
75°	0.0	0.0	0.0	0.0	0.6
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	10.25	11.43	10.62	11.74	12.06	0.00	0.00	0.00	0.00	0.00
	3H	10.09	11.13	10.47	11.46	11.82	0.00	0.00	0.00	0.00	0.00
	4H	10.01	10.96	10.41	11.31	11.70	0.00	0.00	0.00	0.00	0.00
	6H	9.91	10.79	10.33	11.16	11.56	0.00	0.00	0.00	0.00	0.00
	8H	9.87	10.69	10.30	11.08	11.49	0.00	0.00	0.00	0.00	0.00
	12H	9.81	10.60	10.25	10.98	11.41	0.00	0.00	0.00	0.00	0.00
4H	2H	10.01	10.97	10.42	11.32	11.71	0.00	0.00	0.00	0.00	0.00
	3H	9.85	10.62	10.26	11.02	11.43	0.00	0.00	0.00	0.00	0.00
	4H	9.74	10.42	10.18	10.85	11.29	0.00	0.00	0.00	0.00	0.00
	6H	9.65	10.23	10.11	10.68	11.15	0.00	0.00	0.00	0.00	0.00
	8H	9.58	10.13	10.05	10.58	11.05	0.00	0.00	0.00	0.00	0.00
	12H	9.52	10.00	10.01	10.49	10.96	0.00	0.00	0.00	0.00	0.00
8H	4H	9.58	10.13	10.05	10.58	11.05	0.00	0.00	0.00	0.00	0.00
	6H	9.46	9.91	9.97	10.41	10.89	0.00	0.00	0.00	0.00	0.00
	8H	9.39	9.79	9.92	10.31	10.80	0.00	0.00	0.00	0.00	0.00
	12H	9.34	9.69	9.86	10.19	10.76	0.00	0.00	0.00	0.00	0.00
12H	4H	9.52	10.00	10.01	10.49	10.96	0.00	0.00	0.00	0.00	0.00
	6H	9.39	9.79	9.92	10.31	10.80	0.00	0.00	0.00	0.00	0.00
	8H	9.34	9.69	9.86	10.19	10.76	0.00	0.00	0.00	0.00	0.00