

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: P1059202

Luminaire Tested: S123RDRP-S340D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059202
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-S340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

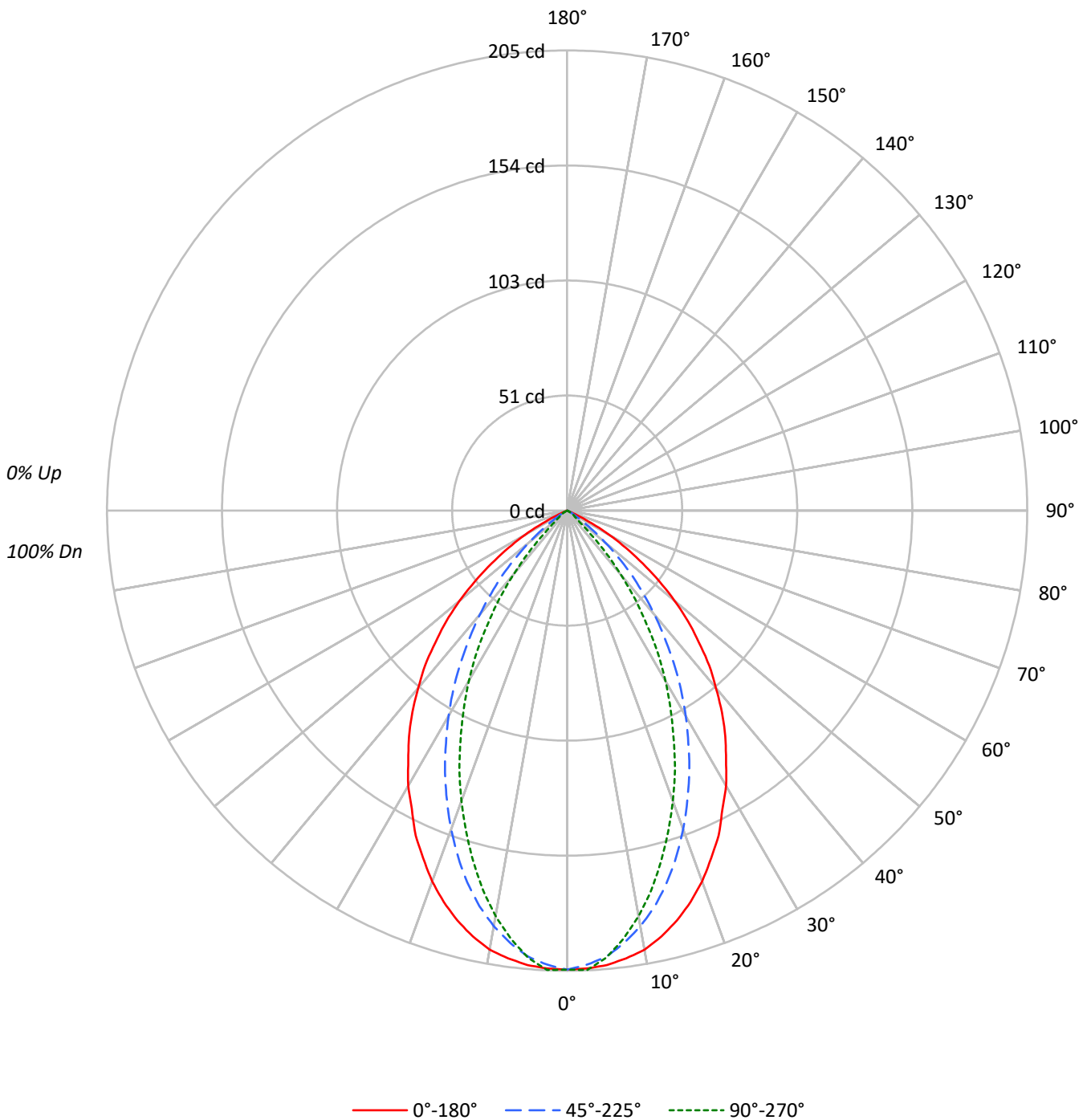
Lumens per Lamp: N/A
Luminaire Lumens: 233.3 lumens
Efficiency: N/A
Efficacy: 18.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	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°	2401	2401	2401
5°	2395	2352	2356
10°	2368	2242	2187
15°	2298	2086	1966
20°	2197	1888	1719
25°	2069	1669	1455
30°	1920	1433	1188
35°	1760	1185	883
40°	1580	929	566
45°	1378	678	236
50°	1144	404	90
55°	843	168	68
60°	510	61	38
65°	136	36	19
70°	0	10	10
75°	0	0	14
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1378 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.8	8.1
10°-20°	48.6	20.8
20°-30°	60.6	25.9
30°-40°	54.1	23.2
40°-50°	34.2	14.6
50°-60°	14.3	6.1
60°-70°	2.7	1.2
70°-80°	0.1	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°	128.0	54.8
0°-40°	182.1	78.0
0°-60°	230.6	98.8
0°-90°	233.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	233.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	204	204	204	204	204	
5°	203	203	200	200	200	19
15°	189	184	172	164	162	53
25°	160	147	129	118	112	73
35°	123	105	83	68	62	77
45°	83	64	41	22	14	64
55°	41	28	8	3	3	37
65°	5	4	1	1	1	7
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	204.5	204.5	204.5	204.5	204.5
2.5°	204.2	204.5	202.5	204.5	204.8
5°	203.2	202.8	199.5	200.2	199.9
7.5°	201.2	200.2	194.3	193.0	192.3
10°	198.6	195.9	188.0	184.7	183.4
12.5°	194.3	190.7	180.5	175.2	173.2
15°	189.0	184.4	171.6	164.3	161.7
17.5°	182.8	176.2	161.7	153.8	149.8
20°	175.8	166.6	151.1	141.6	137.6
22.5°	167.6	157.4	139.9	129.7	125.5
25°	159.7	146.9	128.8	117.6	112.3
27.5°	149.8	136.3	116.9	105.4	99.8
30°	141.6	126.1	105.7	92.9	87.6
32.5°	131.7	115.6	94.2	80.0	75.1
35°	122.8	105.0	82.7	67.8	61.6
37.5°	113.3	94.8	71.1	55.6	49.7
40°	103.1	84.6	60.6	43.5	36.9
42.5°	93.8	74.4	50.1	32.3	25.7
45°	83.0	64.5	40.8	21.7	14.2
47.5°	73.1	55.3	31.0	12.2	7.6
50°	62.6	45.8	22.1	6.3	4.9
52.5°	51.7	36.6	14.5	4.3	4.0
55°	41.2	28.3	8.2	3.3	3.3
57.5°	31.0	20.4	4.3	2.6	2.3
60°	21.7	13.5	2.6	2.0	1.6
62.5°	12.5	7.9	2.0	1.3	1.3
65°	4.9	3.6	1.3	0.7	0.7
67.5°	0.3	1.0	0.7	0.3	0.3
70°	0.0	0.0	0.3	0.3	0.3
72.5°	0.0	0.0	0.3	0.3	0.3
75°	0.0	0.0	0.0	0.0	0.3
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	8.23	9.41	8.60	9.72	10.04	0.00	0.00	0.00	0.00	0.00
	3H	8.07	9.10	8.45	9.44	9.80	0.00	0.00	0.00	0.00	0.00
	4H	7.99	8.94	8.39	9.29	9.68	0.00	0.00	0.00	0.00	0.00
	6H	7.89	8.77	8.31	9.14	9.53	0.00	0.00	0.00	0.00	0.00
	8H	7.84	8.67	8.28	9.06	9.47	0.00	0.00	0.00	0.00	0.00
	12H	7.79	8.58	8.23	8.96	9.39	0.00	0.00	0.00	0.00	0.00
4H	2H	7.99	8.95	8.40	9.30	9.68	0.00	0.00	0.00	0.00	0.00
	3H	7.83	8.59	8.24	9.00	9.41	0.00	0.00	0.00	0.00	0.00
	4H	7.72	8.40	8.16	8.83	9.27	0.00	0.00	0.00	0.00	0.00
	6H	7.63	8.21	8.09	8.66	9.13	0.00	0.00	0.00	0.00	0.00
	8H	7.56	8.10	8.03	8.55	9.03	0.00	0.00	0.00	0.00	0.00
	12H	7.50	7.98	7.99	8.47	8.94	0.00	0.00	0.00	0.00	0.00
8H	4H	7.56	8.10	8.03	8.55	9.03	0.00	0.00	0.00	0.00	0.00
	6H	7.44	7.88	7.95	8.38	8.87	0.00	0.00	0.00	0.00	0.00
	8H	7.37	7.77	7.90	8.29	8.78	0.00	0.00	0.00	0.00	0.00
	12H	7.32	7.67	7.84	8.16	8.74	0.00	0.00	0.00	0.00	0.00
12H	4H	7.50	7.98	7.99	8.47	8.94	0.00	0.00	0.00	0.00	0.00
	6H	7.37	7.77	7.90	8.29	8.78	0.00	0.00	0.00	0.00	0.00
	8H	7.32	7.67	7.84	8.16	8.74	0.00	0.00	0.00	0.00	0.00