

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: P1059607

Luminaire Tested: S123RDR-H340D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059607
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-H340D927-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

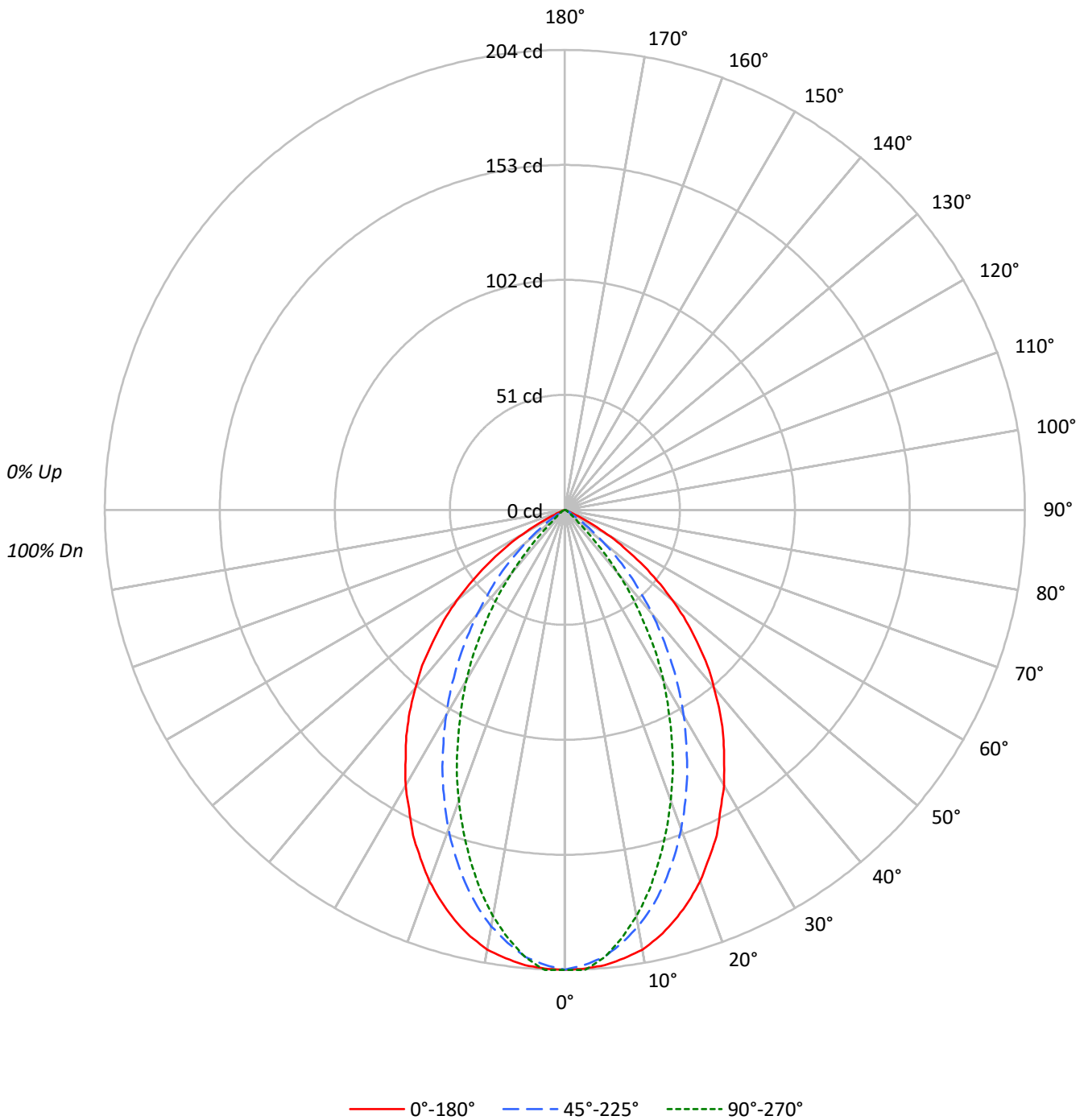
Lumens per Lamp: N/A
Luminaire Lumens: 232.8 lumens
Efficiency: N/A
Efficacy: 19.9 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.93
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	2395	2395	2395
5°	2389	2347	2350
10°	2362	2237	2182
15°	2292	2080	1961
20°	2192	1884	1716
25°	2064	1664	1451
30°	1915	1429	1185
35°	1756	1181	880
40°	1576	926	564
45°	1375	676	234
50°	1140	402	90
55°	841	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: 1375 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.8	8.1
10°-20°	48.5	20.8
20°-30°	60.4	25.9
30°-40°	54.0	23.2
40°-50°	34.1	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°	127.6	54.8
0°-40°	181.6	78.0
0°-60°	230.0	98.8
0°-90°	232.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	232.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	204	204	204	204	204	
5°	203	202	199	200	199	19
15°	188	184	171	164	161	53
25°	159	146	128	117	112	73
35°	122	105	82	68	61	76
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°	204.0	204.0	204.0	204.0	204.0
2.5°	203.7	204.0	202.0	204.0	204.3
5°	202.7	202.3	199.1	199.7	199.4
7.5°	200.7	199.7	193.8	192.5	191.8
10°	198.1	195.4	187.6	184.3	183.0
12.5°	193.8	190.2	180.0	174.8	172.8
15°	188.5	184.0	171.1	163.9	161.3
17.5°	182.3	175.7	161.3	153.4	149.5
20°	175.4	166.2	150.8	141.2	137.3
22.5°	167.2	157.0	139.6	129.4	125.2
25°	159.3	146.5	128.4	117.3	112.0
27.5°	149.5	136.0	116.6	105.1	99.5
30°	141.2	125.8	105.4	92.6	87.4
32.5°	131.4	115.3	93.9	79.8	74.9
35°	122.5	104.8	82.4	67.7	61.4
37.5°	113.0	94.6	71.0	55.5	49.6
40°	102.8	84.4	60.4	43.4	36.8
42.5°	93.6	74.2	49.9	32.2	25.6
45°	82.8	64.4	40.7	21.7	14.1
47.5°	72.9	55.2	30.9	12.2	7.6
50°	62.4	45.7	22.0	6.2	4.9
52.5°	51.6	36.5	14.5	4.3	3.9
55°	41.1	28.2	8.2	3.3	3.3
57.5°	30.9	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	8.24	9.41	8.60	9.72	10.04	0.00	0.00	0.00	0.00	0.00
	3H	8.08	9.11	8.46	9.44	9.81	0.00	0.00	0.00	0.00	0.00
	4H	7.99	8.94	8.39	9.30	9.68	0.00	0.00	0.00	0.00	0.00
	6H	7.90	8.77	8.31	9.14	9.54	0.00	0.00	0.00	0.00	0.00
	8H	7.85	8.67	8.28	9.06	9.47	0.00	0.00	0.00	0.00	0.00
	12H	7.80	8.58	8.23	8.97	9.40	0.00	0.00	0.00	0.00	0.00
4H	2H	7.99	8.95	8.40	9.30	9.69	0.00	0.00	0.00	0.00	0.00
	3H	7.83	8.60	8.24	9.00	9.41	0.00	0.00	0.00	0.00	0.00
	4H	7.72	8.41	8.16	8.83	9.28	0.00	0.00	0.00	0.00	0.00
	6H	7.63	8.21	8.10	8.66	9.13	0.00	0.00	0.00	0.00	0.00
	8H	7.56	8.11	8.04	8.56	9.03	0.00	0.00	0.00	0.00	0.00
	12H	7.51	7.98	8.00	8.47	8.95	0.00	0.00	0.00	0.00	0.00
8H	4H	7.56	8.11	8.04	8.56	9.03	0.00	0.00	0.00	0.00	0.00
	6H	7.45	7.89	7.95	8.39	8.87	0.00	0.00	0.00	0.00	0.00
	8H	7.37	7.77	7.90	8.29	8.79	0.00	0.00	0.00	0.00	0.00
	12H	7.32	7.67	7.84	8.17	8.74	0.00	0.00	0.00	0.00	0.00
12H	4H	7.51	7.98	8.00	8.47	8.95	0.00	0.00	0.00	0.00	0.00
	6H	7.38	7.77	7.90	8.29	8.79	0.00	0.00	0.00	0.00	0.00
	8H	7.32	7.67	7.84	8.17	8.74	0.00	0.00	0.00	0.00	0.00