

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: P1059148

Luminaire Tested: S123RDR-S1165D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059148  
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-S1165D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

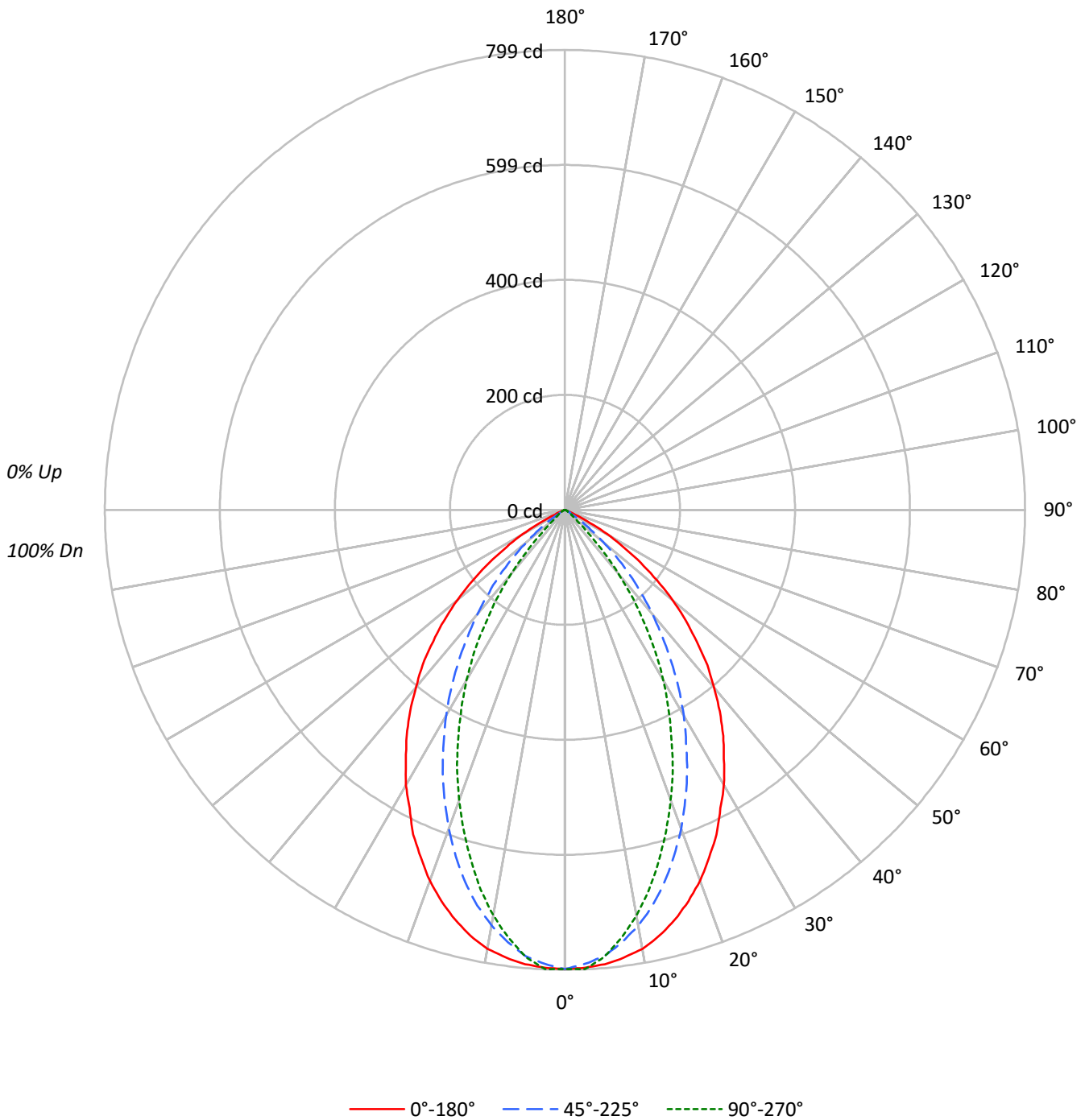
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 910.1 lumens  
Efficiency: N/A  
Efficacy: 21.8 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): 41.8  
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°	9366	9366	9366
5°	9340	9174	9189
10°	9234	8744	8530
15°	8962	8134	7666
20°	8570	7366	6708
25°	8071	6507	5675
30°	7489	5590	4632
35°	6868	4622	3443
40°	6162	3622	2204
45°	5374	2645	917
50°	4457	1571	353
55°	3286	657	262
60°	1992	242	150
65°	536	142	72
70°	0	45	45
75°	0	0	59
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5374 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.4	8.1
10°-20°	189.5	20.8
20°-30°	236.2	25.9
30°-40°	211.2	23.2
40°-50°	133.3	14.6
50°-60°	55.8	6.1
60°-70°	10.5	1.2
70°-80°	0.4	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°	499.1	54.8
0°-40°	710.2	78.0
0°-60°	899.3	98.8
0°-90°	910.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	910.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	792	791	778	781	780	75
15°	737	719	669	641	631	207
25°	623	573	502	458	438	285
35°	479	410	322	265	240	298
45°	324	252	159	85	55	250
55°	160	110	32	13	13	144
65°	19	14	5	3	3	27
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°	797.6	797.6	797.6	797.6	797.6
2.5°	796.3	797.6	789.9	797.6	798.9
5°	792.4	791.1	778.3	780.9	779.6
7.5°	784.7	780.9	757.8	752.6	750.0
10°	774.4	764.2	733.3	720.5	715.4
12.5°	757.8	743.6	703.8	683.3	675.6
15°	737.2	719.2	669.1	640.9	630.6
17.5°	712.8	687.1	630.6	599.8	584.4
20°	685.8	649.9	589.5	552.3	536.8
22.5°	653.7	613.9	545.8	506.0	489.3
25°	622.9	572.8	502.2	458.5	438.0
27.5°	584.4	531.7	455.9	411.0	389.2
30°	552.3	491.9	412.3	362.2	341.6
32.5°	513.7	450.8	367.3	312.1	292.8
35°	479.1	409.7	322.4	264.6	240.2
37.5°	441.8	369.9	277.4	217.1	193.9
40°	402.0	330.1	236.3	169.5	143.8
42.5°	366.0	290.3	195.2	125.9	100.2
45°	323.6	251.7	159.3	84.8	55.2
47.5°	285.1	215.8	120.7	47.5	29.5
50°	244.0	178.5	86.0	24.4	19.3
52.5°	201.6	142.6	56.5	16.7	15.4
55°	160.5	110.5	32.1	12.8	12.8
57.5°	120.7	79.6	16.7	10.3	9.0
60°	84.8	52.7	10.3	7.7	6.4
62.5°	48.8	30.8	7.7	5.1	5.1
65°	19.3	14.1	5.1	2.6	2.6
67.5°	1.3	3.9	2.6	1.3	1.3
70°	0.0	0.0	1.3	1.3	1.3
72.5°	0.0	0.0	1.3	1.3	1.3
75°	0.0	0.0	0.0	0.0	1.3
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

(END OF REPORT)