

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: P1059151

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059151
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

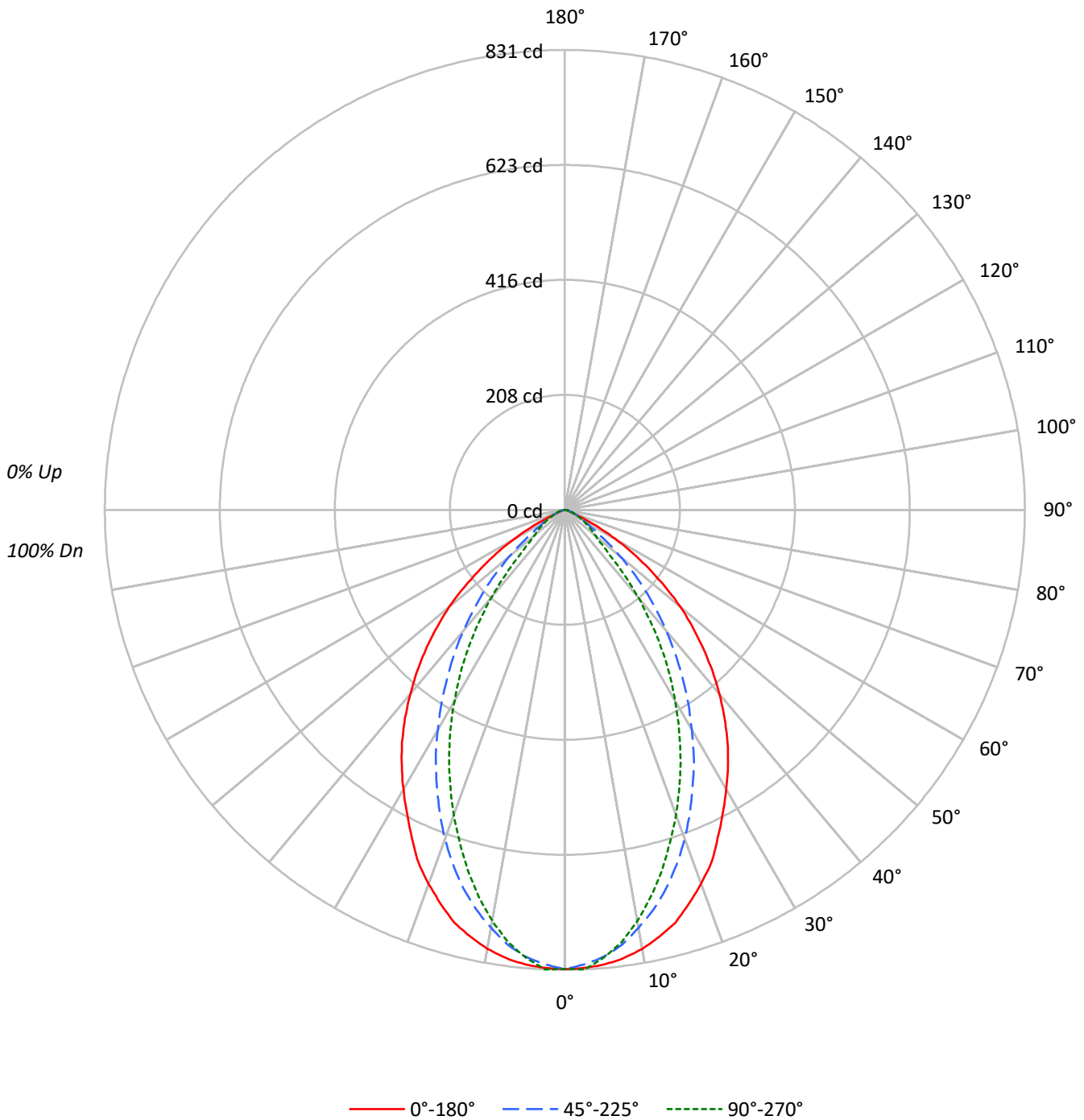
Lumens per Lamp: N/A
Luminaire Lumens: 1071.2 lumens
Efficiency: N/A
Efficacy: 25.6 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9743	9743	9743
5°	9720	9554	9569
10°	9602	9143	8990
15°	9384	8603	8213
20°	8988	7912	7335
25°	8471	7090	6407
30°	7906	6217	5399
35°	7347	5302	4345
40°	6654	4370	3150
45°	5865	3391	1898
50°	4974	2369	1290
55°	3787	1421	1079
60°	2473	904	845
65°	1034	678	678
70°	354	484	529
75°	290	349	408
80°	176	264	345
85°	175	175	350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5865 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	7.2
10°-20°	200.6	18.7
20°-30°	257.2	24.0
30°-40°	241.3	22.5
40°-50°	168.4	15.7
50°-60°	87.1	8.1
60°-70°	29.8	2.8
70°-80°	8.5	0.8
80°-90°	1.8	0.2
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°	534.4	49.9
0°-40°	775.7	72.4
0°-60°	1031.1	96.3
0°-90°	1071.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1071.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	825	823	810	814	812	78
15°	772	753	708	685	676	216
25°	654	613	547	510	494	301
35°	512	450	370	322	303	319
45°	353	289	204	141	114	272
55°	185	139	69	54	53	167
65°	37	32	24	23	24	44
75°	6	6	8	9	9	6
85°	1	1	1	1	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	829.7	829.7	829.7	829.7	829.7
2.5°	828.5	829.7	822.0	829.7	831.0
5°	824.6	823.3	810.5	814.3	811.8
7.5°	816.9	813.0	792.5	787.4	787.4
10°	805.3	797.6	766.8	757.8	754.0
12.5°	789.9	779.6	739.8	723.1	716.7
15°	771.9	752.7	707.7	684.6	675.6
17.5°	746.2	720.6	671.8	644.8	630.7
20°	719.3	687.2	633.2	601.1	587.0
22.5°	691.0	652.5	590.8	556.2	540.7
25°	653.8	612.7	547.2	509.9	494.5
27.5°	617.8	574.1	504.8	462.4	447.0
30°	583.1	531.8	458.5	417.4	398.2
32.5°	548.4	490.6	414.9	369.9	351.9
35°	512.5	449.5	369.9	322.4	303.1
37.5°	474.0	409.7	327.5	276.2	253.0
40°	434.1	367.3	285.1	227.3	205.5
42.5°	394.3	328.8	242.8	183.7	158.0
45°	353.2	289.0	204.2	141.3	114.3
47.5°	312.1	249.2	167.0	102.8	86.1
50°	272.3	211.9	129.7	75.8	70.6
52.5°	228.6	176.0	97.6	62.9	61.7
55°	185.0	138.7	69.4	53.9	52.7
57.5°	146.4	107.9	50.1	45.0	43.7
60°	105.3	77.1	38.5	37.2	36.0
62.5°	69.4	52.7	30.8	29.5	29.5
65°	37.2	32.1	24.4	23.1	24.4
67.5°	15.4	18.0	18.0	19.3	19.3
70°	10.3	11.6	14.1	15.4	15.4
72.5°	7.7	9.0	10.3	11.6	11.6
75°	6.4	6.4	7.7	9.0	9.0
77.5°	3.9	5.1	5.1	6.4	7.7
80°	2.6	3.9	3.9	5.1	5.1
82.5°	1.3	2.6	2.6	3.9	3.9
85°	1.3	1.3	1.3	1.3	2.6
87.5°	0.0	0.0	0.0	0.0	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)