

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: P1059315

Luminaire Tested: S123RDR-S560D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059315
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

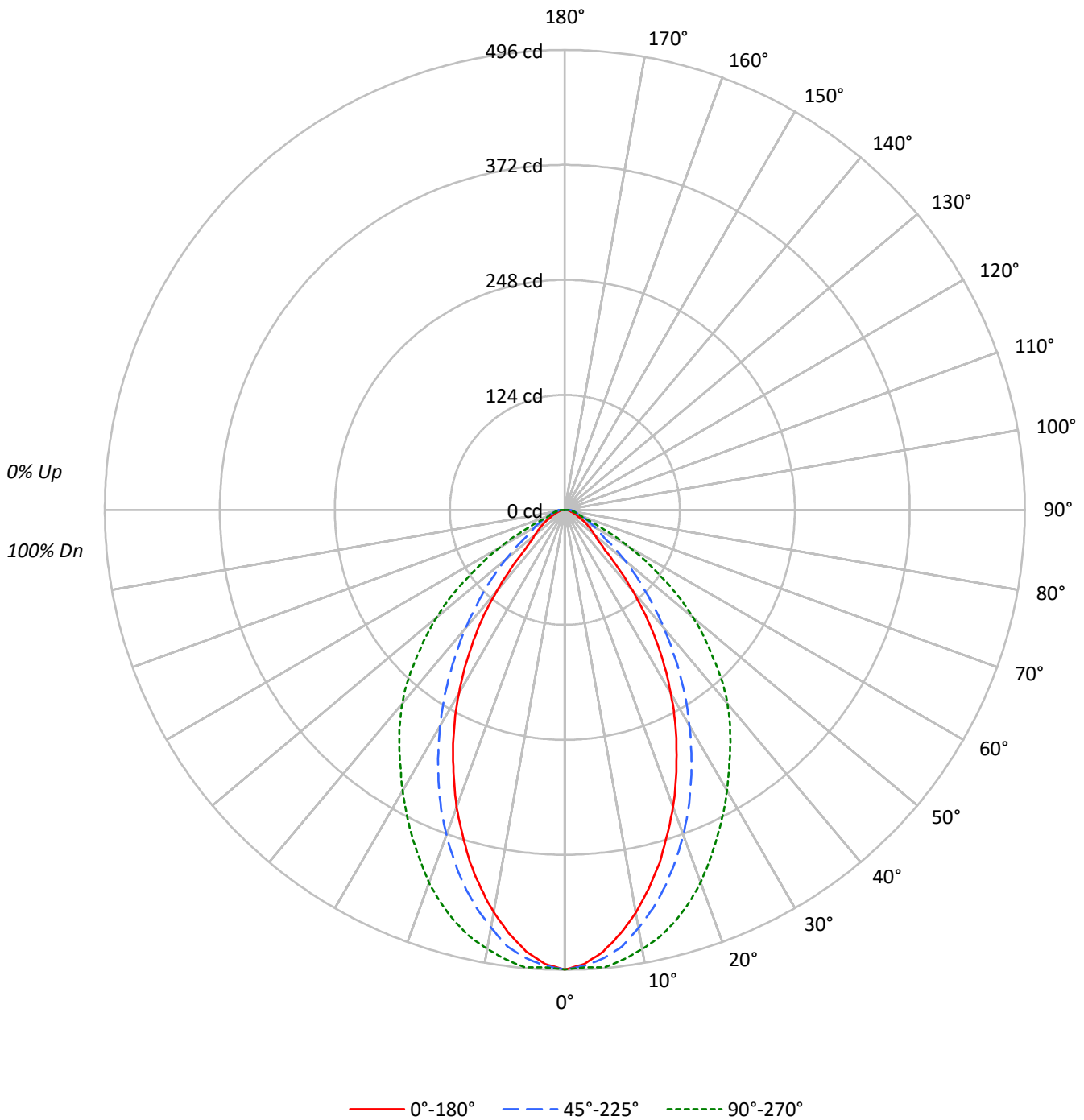
Lumens per Lamp: N/A
Luminaire Lumens: 665.5 lumens
Efficiency: N/A
Efficacy: 34.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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			100	
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89	
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79	
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64			64	
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58			58	
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52			52	
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48			48	
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			44	
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40			40	
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5821	5821	5821
5°	5633	5720	5836
10°	5257	5456	5735
15°	4791	5099	5585
20°	4264	4664	5348
25°	3694	4173	5043
30°	3098	3641	4743
35°	2454	3099	4458
40°	1737	2549	4182
45°	1023	2014	3763
50°	765	1531	3296
55°	643	1034	2647
60°	521	883	1881
65°	411	753	992
70°	360	656	615
75°	336	612	585
80°	331	669	582
85°	418	997	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3763 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.6	6.9
10°-20°	118.6	17.8
20°-30°	151.0	22.7
30°-40°	142.0	21.3
40°-50°	102.3	15.4
50°-60°	59.1	8.9
60°-70°	27.0	4.1
70°-80°	13.5	2.0
80°-90°	6.4	1.0
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°	315.2	47.4
0°-40°	457.2	68.7
0°-60°	618.6	93.0
0°-90°	665.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	665.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	478	486	485	490	495	44
15°	394	408	419	443	459	110
25°	285	300	322	358	389	130
35°	171	186	216	266	311	106
45°	62	77	121	182	227	52
55°	31	33	50	96	129	28
65°	15	21	27	30	36	15
75°	7	14	14	13	13	8
85°	3	7	7	7	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.7	495.7	495.7	495.7	495.7
2.5°	490.2	496.3	492.0	492.7	493.9
5°	477.9	485.9	485.3	490.2	495.1
7.5°	460.6	469.9	474.8	482.2	489.0
10°	440.9	451.4	457.6	471.1	481.0
12.5°	418.1	431.7	439.7	457.6	471.7
15°	394.1	408.3	419.4	442.8	459.4
17.5°	367.0	382.4	396.6	424.3	444.6
20°	341.2	355.9	373.2	403.4	428.0
22.5°	312.8	328.8	348.6	380.6	408.3
25°	285.1	299.9	322.1	357.8	389.2
27.5°	257.4	272.2	295.6	335.0	369.5
30°	228.5	243.9	268.5	312.2	349.8
32.5°	200.1	214.9	242.6	290.0	329.5
35°	171.2	186.0	216.2	266.0	311.0
37.5°	142.9	158.3	190.3	246.3	292.5
40°	113.3	129.9	166.3	226.0	272.8
42.5°	85.6	103.5	142.3	205.1	251.3
45°	61.6	77.0	121.3	182.3	226.6
47.5°	48.0	56.0	102.2	158.9	203.8
50°	41.9	43.1	83.8	137.3	180.4
52.5°	36.3	37.6	65.9	117.0	155.8
55°	31.4	32.6	50.5	96.1	129.3
57.5°	26.5	28.3	41.9	76.4	104.1
60°	22.2	24.6	37.6	58.5	80.1
62.5°	17.9	22.2	32.0	43.1	57.3
65°	14.8	20.9	27.1	30.2	35.7
67.5°	12.3	19.1	22.8	21.6	20.9
70°	10.5	17.2	19.1	17.2	17.9
72.5°	8.6	16.0	16.0	14.8	14.8
75°	7.4	14.2	13.5	12.9	12.9
77.5°	6.2	12.3	11.7	11.1	10.5
80°	4.9	9.9	9.9	9.2	8.6
82.5°	4.3	8.0	8.0	8.0	6.8
85°	3.1	6.8	7.4	6.8	5.5
87.5°	2.5	6.2	6.2	5.5	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)