

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: P1059153

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059153
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-S1165D940-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

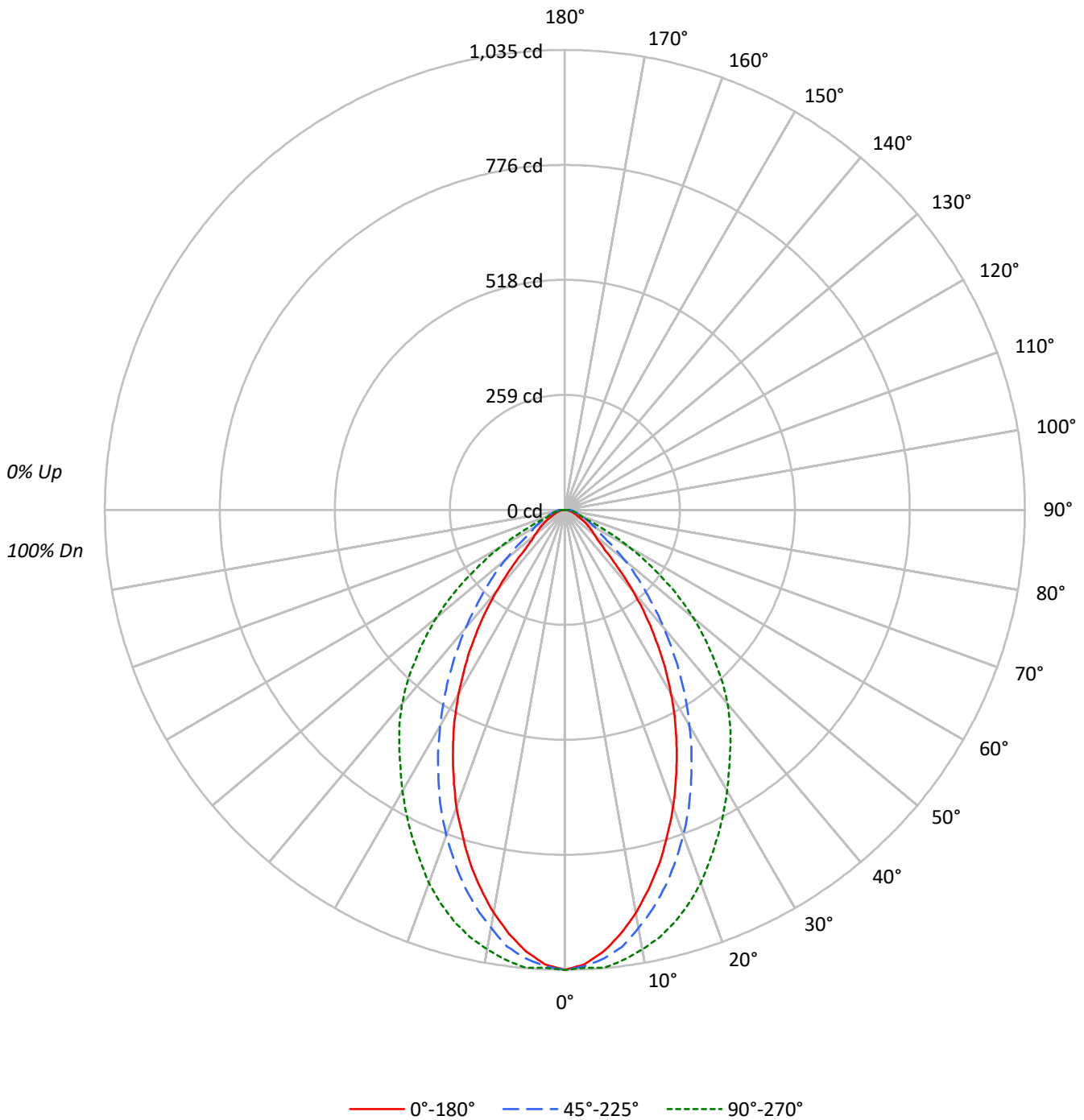
Lumens per Lamp: N/A
Luminaire Lumens: 1389.8 lumens
Efficiency: N/A
Efficacy: 33.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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°	12157	12157	12157
5°	11764	11945	12188
10°	10979	11394	11976
15°	10006	10647	11663
20°	8903	9739	11169
25°	7716	8714	10531
30°	6469	7603	9905
35°	5125	6471	9310
40°	3627	5322	8733
45°	2136	4208	7860
50°	1598	3195	6883
55°	1343	2160	5530
60°	1087	1844	3927
65°	859	1573	2073
70°	752	1370	1281
75°	699	1284	1225
80°	697	1393	1217
85°	862	2075	1563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7860 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	6.9
10°-20°	247.6	17.8
20°-30°	315.4	22.7
30°-40°	296.6	21.3
40°-50°	213.6	15.4
50°-60°	123.4	8.9
60°-70°	56.4	4.1
70°-80°	28.2	2.0
80°-90°	13.3	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°	658.3	47.4
0°-40°	954.9	68.7
0°-60°	1291.9	93.0
0°-90°	1389.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1389.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	998	1015	1013	1024	1034	93
15°	823	853	876	925	959	229
25°	596	626	673	747	813	272
35°	358	388	451	556	650	222
45°	129	161	253	381	473	109
55°	66	68	106	201	270	59
65°	31	44	57	63	75	32
75°	15	30	28	27	27	16
85°	6	14	15	14	12	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1035.3	1035.3	1035.3	1035.3	1035.3
2.5°	1023.7	1036.6	1027.6	1028.9	1031.5
5°	998.0	1014.7	1013.4	1023.7	1034.0
7.5°	962.0	981.3	991.6	1007.0	1021.2
10°	920.8	942.7	955.6	983.9	1004.4
12.5°	873.3	901.6	918.3	955.6	985.2
15°	823.1	852.7	875.8	924.7	959.4
17.5°	766.5	798.7	828.2	886.1	928.6
20°	712.5	743.4	779.4	842.4	893.8
22.5°	653.3	686.8	727.9	794.8	852.7
25°	595.5	626.3	672.6	747.2	812.8
27.5°	537.6	568.5	617.3	699.6	771.7
30°	477.1	509.3	560.7	652.1	730.5
32.5°	418.0	448.8	506.7	605.8	688.1
35°	357.5	388.4	451.4	555.6	649.5
37.5°	298.4	330.5	397.4	514.4	610.9
40°	236.6	271.4	347.2	472.0	569.7
42.5°	178.8	216.1	297.1	428.3	524.7
45°	128.6	160.8	253.4	380.7	473.3
47.5°	100.3	117.0	213.5	331.8	425.7
50°	87.5	90.0	174.9	286.8	376.8
52.5°	75.9	78.5	137.6	244.4	325.4
55°	65.6	68.2	105.5	200.6	270.1
57.5°	55.3	59.2	87.5	159.5	217.4
60°	46.3	51.4	78.5	122.2	167.2
62.5°	37.3	46.3	66.9	90.0	119.6
65°	30.9	43.7	56.6	63.0	74.6
67.5°	25.7	39.9	47.6	45.0	43.7
70°	21.9	36.0	39.9	36.0	37.3
72.5°	18.0	33.4	33.4	30.9	30.9
75°	15.4	29.6	28.3	27.0	27.0
77.5°	12.9	25.7	24.4	23.1	21.9
80°	10.3	20.6	20.6	19.3	18.0
82.5°	9.0	16.7	16.7	16.7	14.1
85°	6.4	14.1	15.4	14.1	11.6
87.5°	5.1	12.9	12.9	11.6	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)