

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: P1059157

Luminaire Tested: S123RDR-S1165D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059157
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-S1165D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

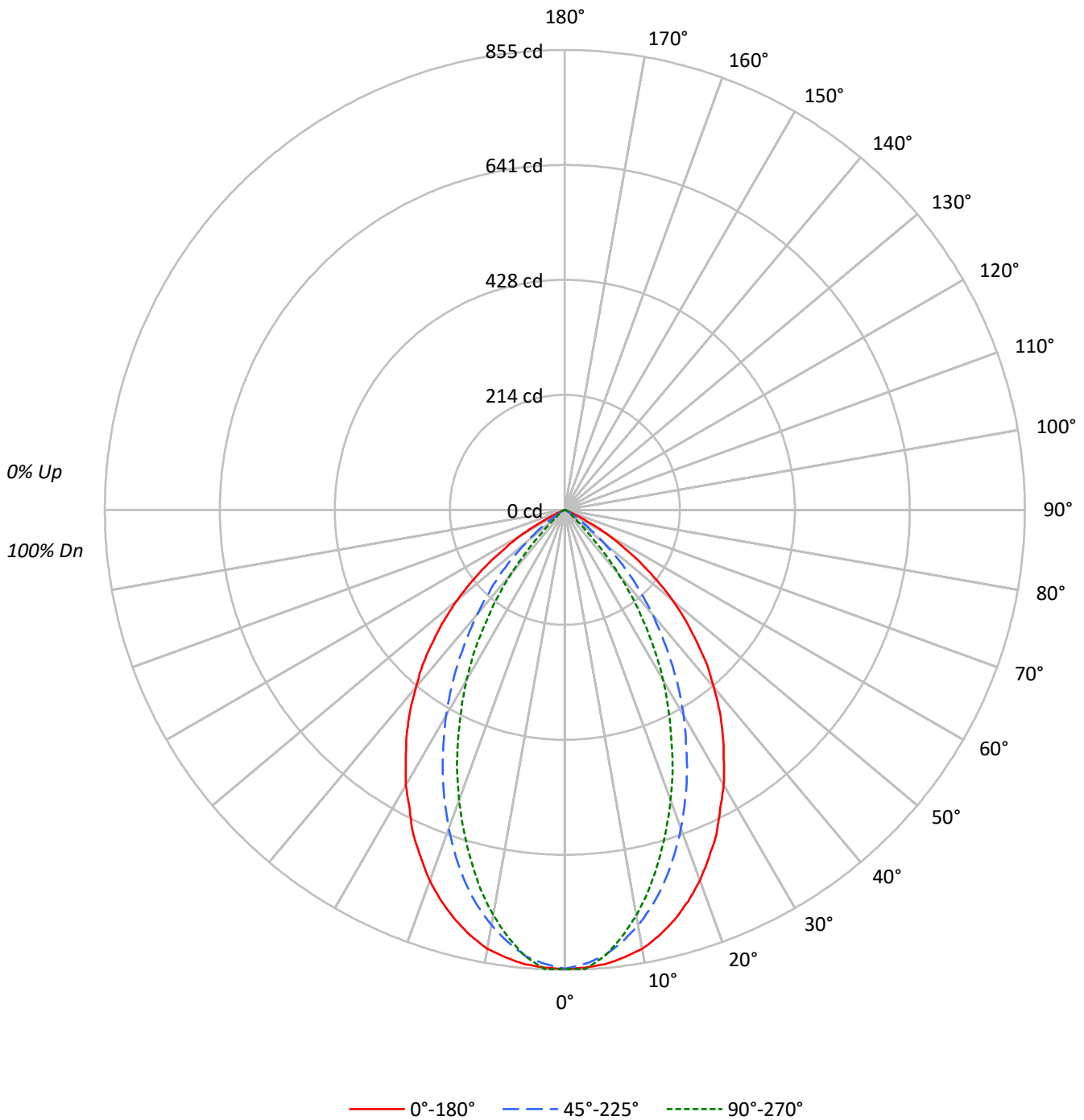
Lumens per Lamp: N/A
Luminaire Lumens: 973.7 lumens
Efficiency: N/A
Efficacy: 23.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	10020	10020	10020
5°	9993	9815	9831
10°	9879	9355	9125
15°	9588	8703	8202
20°	9168	7881	7176
25°	8634	6960	6070
30°	8011	5981	4956
35°	7347	4944	3683
40°	6593	3875	2359
45°	5751	2830	981
50°	4770	1682	376
55°	3517	704	280
60°	2130	258	162
65°	572	153	75
70°	0	48	48
75°	0	0	64
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5751 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	8.1
10°-20°	202.7	20.8
20°-30°	252.7	25.9
30°-40°	225.9	23.2
40°-50°	142.6	14.6
50°-60°	59.7	6.1
60°-70°	11.2	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°	533.9	54.8
0°-40°	759.8	78.0
0°-60°	962.1	98.8
0°-90°	973.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	848	846	833	835	834	80
15°	789	770	716	686	675	221
25°	666	613	537	490	468	305
35°	512	438	345	283	257	319
45°	346	269	170	91	59	267
55°	172	118	34	14	14	154
65°	21	15	6	3	3	29
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°	853.3	853.3	853.3	853.3	853.3
2.5°	851.9	853.3	845.0	853.3	854.7
5°	847.8	846.4	832.7	835.4	834.0
7.5°	839.5	835.4	810.7	805.2	802.4
10°	828.5	817.6	784.6	770.8	765.3
12.5°	810.7	795.6	753.0	731.0	722.7
15°	788.7	769.5	715.9	685.6	674.7
17.5°	762.6	735.1	674.7	641.7	625.2
20°	733.7	695.3	630.7	590.8	574.3
22.5°	699.4	656.8	584.0	541.4	523.5
25°	666.4	612.8	537.2	490.5	468.5
27.5°	625.2	568.9	487.8	439.7	416.3
30°	590.8	526.3	441.1	387.5	365.5
32.5°	549.6	482.3	393.0	333.9	313.3
35°	512.5	438.3	344.9	283.1	256.9
37.5°	472.7	395.7	296.8	232.2	207.5
40°	430.1	353.1	252.8	181.4	153.9
42.5°	391.6	310.5	208.9	134.7	107.2
45°	346.3	269.3	170.4	90.7	59.1
47.5°	305.0	230.8	129.2	50.8	31.6
50°	261.1	191.0	92.1	26.1	20.6
52.5°	215.7	152.5	60.5	17.9	16.5
55°	171.8	118.2	34.4	13.7	13.7
57.5°	129.2	85.2	17.9	11.0	9.6
60°	90.7	56.3	11.0	8.2	6.9
62.5°	52.2	33.0	8.2	5.5	5.5
65°	20.6	15.1	5.5	2.7	2.7
67.5°	1.4	4.1	2.7	1.4	1.4
70°	0.0	0.0	1.4	1.4	1.4
72.5°	0.0	0.0	1.4	1.4	1.4
75°	0.0	0.0	0.0	0.0	1.4
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)