

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: P1055587

Luminaire Tested: S123R3DR-S1165D927-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055587
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S1165D927-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

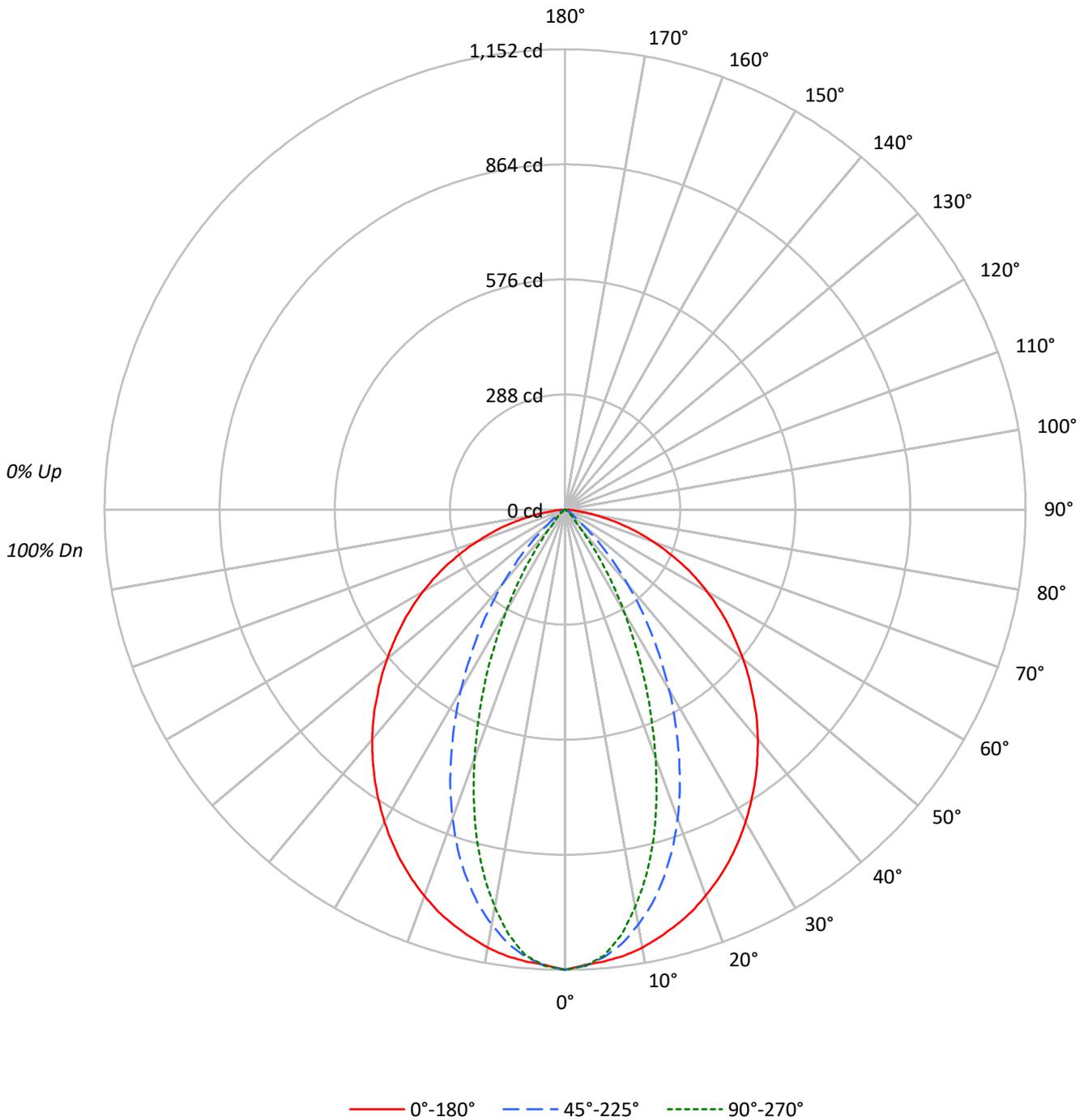
Lumens per Lamp: N/A
Luminaire Lumens: 1348.0 lumens
Efficiency: N/A
Efficacy: 32.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	57	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	76	65	58	53	74	64	57	52	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	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13885	13885	13885
5°	13736	13606	13563
10°	13632	12915	12373
15°	13435	11900	10662
20°	13198	10562	8492
25°	12921	8947	6262
30°	12574	7252	4108
35°	12203	5521	2250
40°	11809	3817	771
45°	11347	2220	448
50°	10890	874	268
55°	10422	553	126
60°	9881	345	58
65°	9203	171	34
70°	8256	85	42
75°	7011	56	56
80°	5228	83	0
85°	1978	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11347 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.6	7.8
10°-20°	268.0	19.9
20°-30°	319.7	23.7
30°-40°	271.1	20.1
40°-50°	184.3	13.7
50°-60°	114.2	8.5
60°-70°	57.9	4.3
70°-80°	23.6	1.8
80°-90°	3.6	0.3
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°	693.2	51.4
0°-40°	964.4	71.5
0°-60°	1262.9	93.7
0°-90°	1348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1135	1146	1124	1116	1121	108
15°	1076	1049	953	878	854	303
25°	971	880	673	520	471	447
35°	829	666	375	202	153	518
45°	666	436	130	32	26	514
55°	496	220	26	10	6	443
65°	323	54	6	1	1	319
75°	150	10	1	1	1	160
85°	14	0	0	1	0	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1151.7	1151.7	1151.7	1151.7	1151.7
2.5°	1141.0	1156.5	1143.4	1142.2	1143.4
5°	1135.0	1145.7	1124.2	1115.9	1120.7
7.5°	1126.6	1131.4	1095.6	1074.1	1074.1
10°	1113.5	1109.9	1054.9	1019.1	1010.7
12.5°	1095.6	1081.2	1009.5	953.4	937.9
15°	1076.4	1049.0	953.4	878.1	854.2
17.5°	1054.9	1013.1	892.5	794.5	759.8
20°	1028.7	972.5	823.2	703.7	661.9
22.5°	1001.2	928.3	750.3	610.5	563.9
25°	971.3	880.5	672.6	519.7	470.7
27.5°	937.9	830.3	596.2	432.5	378.7
30°	903.2	777.8	520.9	348.9	295.1
32.5°	866.2	722.8	445.6	272.4	222.2
35°	829.1	665.5	375.1	201.9	152.9
37.5°	789.7	608.1	307.0	139.8	96.8
40°	750.3	552.0	242.5	88.4	49.0
42.5°	709.7	493.4	184.0	44.2	33.5
45°	665.5	436.1	130.2	32.3	26.3
47.5°	623.6	381.1	86.0	26.3	20.3
50°	580.6	326.2	46.6	19.1	14.3
52.5°	537.6	273.6	33.5	14.3	9.6
55°	495.8	219.8	26.3	9.6	6.0
57.5°	452.8	173.2	20.3	6.0	3.6
60°	409.8	127.8	14.3	3.6	2.4
62.5°	366.8	88.4	9.6	2.4	1.2
65°	322.6	53.8	6.0	1.2	1.2
67.5°	277.2	37.0	3.6	1.2	1.2
70°	234.2	26.3	2.4	1.2	1.2
72.5°	191.2	16.7	1.2	1.2	0.0
75°	150.5	9.6	1.2	1.2	1.2
77.5°	111.1	3.6	1.2	1.2	0.0
80°	75.3	1.2	1.2	1.2	0.0
82.5°	41.8	0.0	1.2	1.2	0.0
85°	14.3	0.0	0.0	1.2	0.0
87.5°	0.0	0.0	0.0	1.2	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)