

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: P1055662

Luminaire Tested: S123R3DR-S775D840-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055662  
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-S775D840-X4F0-XX-UDD-FLL-B  
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

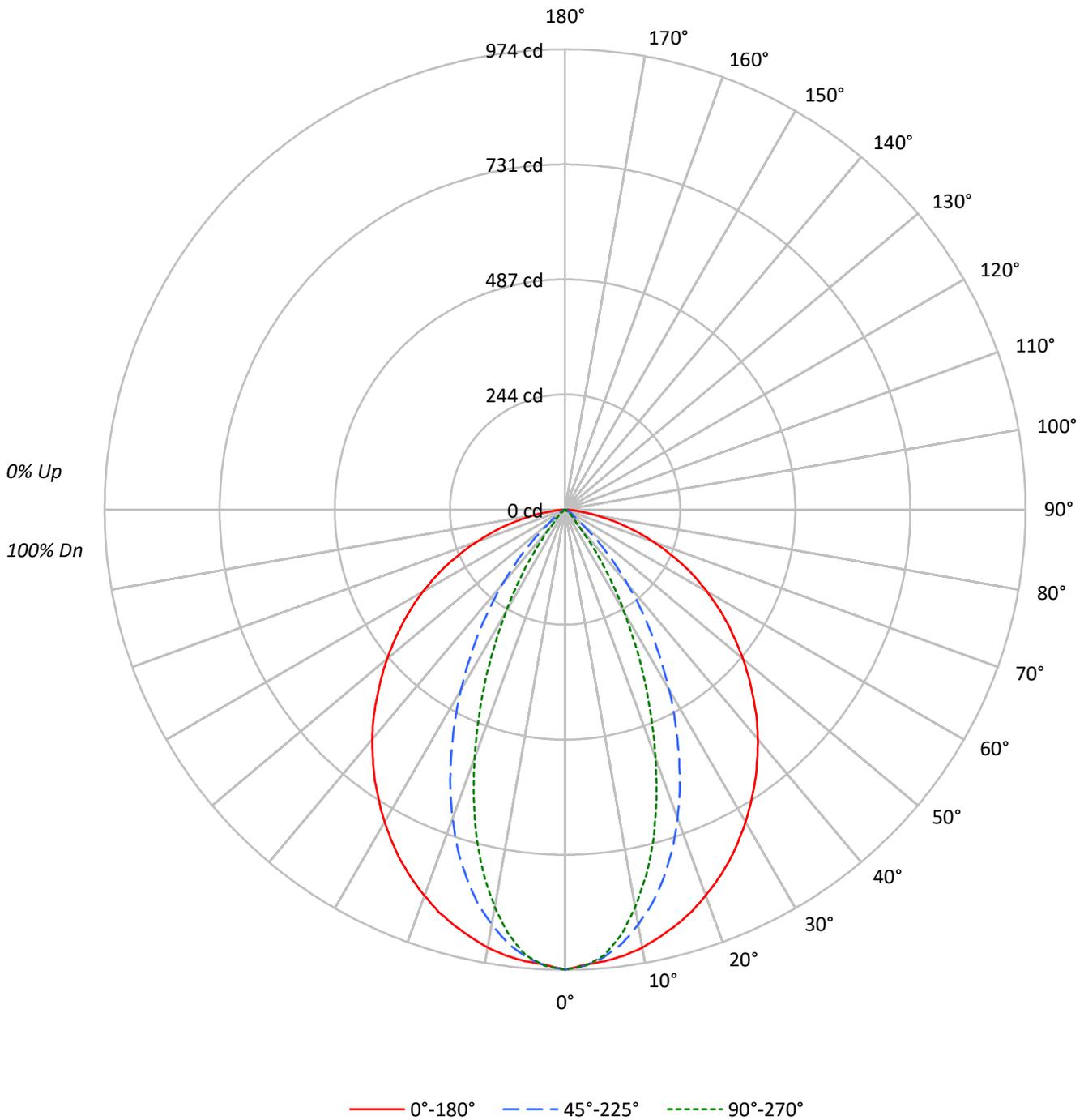
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1139.4 lumens  
Efficiency: N/A  
Efficacy: 43.2 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): 26.4  
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	58	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°	11737	11737	11737
5°	11611	11501	11465
10°	11523	10917	10459
15°	11357	10059	9013
20°	11156	8927	7178
25°	10922	7564	5293
30°	10629	6130	3472
35°	10314	4667	1903
40°	9981	3226	652
45°	9591	1877	379
50°	9206	739	227
55°	8809	467	105
60°	8353	292	48
65°	7780	143	29
70°	6976	71	35
75°	5925	47	47
80°	4416	69	0
85°	1674	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9591 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.3	7.8
10°-20°	226.5	19.9
20°-30°	270.2	23.7
30°-40°	229.2	20.1
40°-50°	155.8	13.7
50°-60°	96.5	8.5
60°-70°	48.9	4.3
70°-80°	19.9	1.7
80°-90°	3.1	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°	586.0	51.4
0°-40°	815.2	71.5
0°-60°	1067.5	93.7
0°-90°	1139.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1139.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	959	968	950	943	947	91
15°	910	887	806	742	722	256
25°	821	744	569	439	398	378
35°	701	562	317	171	129	438
45°	562	369	110	27	22	434
55°	419	186	22	8	5	374
65°	273	45	5	1	1	269
75°	127	8	1	1	1	135
85°	12	0	0	1	0	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	973.5	973.5	973.5	973.5	973.5
2.5°	964.4	977.5	966.4	965.4	966.4
5°	959.4	968.5	950.3	943.2	947.3
7.5°	952.3	956.3	926.0	907.9	907.9
10°	941.2	938.2	891.7	861.4	854.3
12.5°	926.0	913.9	853.3	805.9	792.7
15°	909.9	886.7	805.9	742.2	722.1
17.5°	891.7	856.4	754.4	671.6	642.3
20°	869.5	822.0	695.8	594.8	559.5
22.5°	846.3	784.7	634.2	516.0	476.7
25°	821.0	744.3	568.6	439.3	397.9
27.5°	792.7	701.9	503.9	365.6	320.1
30°	763.5	657.4	440.3	294.9	249.4
32.5°	732.2	611.0	376.7	230.2	187.8
35°	700.8	562.5	317.1	170.7	129.3
37.5°	667.5	514.0	259.5	118.2	81.8
40°	634.2	466.6	205.0	74.7	41.4
42.5°	599.9	417.1	155.5	37.4	28.3
45°	562.5	368.6	110.1	27.3	22.2
47.5°	527.1	322.1	72.7	22.2	17.2
50°	490.8	275.7	39.4	16.2	12.1
52.5°	454.4	231.3	28.3	12.1	8.1
55°	419.1	185.8	22.2	8.1	5.0
57.5°	382.7	146.4	17.2	5.0	3.0
60°	346.4	108.1	12.1	3.0	2.0
62.5°	310.0	74.7	8.1	2.0	1.0
65°	272.7	45.4	5.0	1.0	1.0
67.5°	234.3	31.3	3.0	1.0	1.0
70°	197.9	22.2	2.0	1.0	1.0
72.5°	161.6	14.1	1.0	1.0	0.0
75°	127.2	8.1	1.0	1.0	1.0
77.5°	93.9	3.0	1.0	1.0	0.0
80°	63.6	1.0	1.0	1.0	0.0
82.5°	35.3	0.0	1.0	1.0	0.0
85°	12.1	0.0	0.0	1.0	0.0
87.5°	0.0	0.0	0.0	1.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)