

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: P1056040

Luminaire Tested: S124R3DR-S575D840-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056040
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S575D840-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

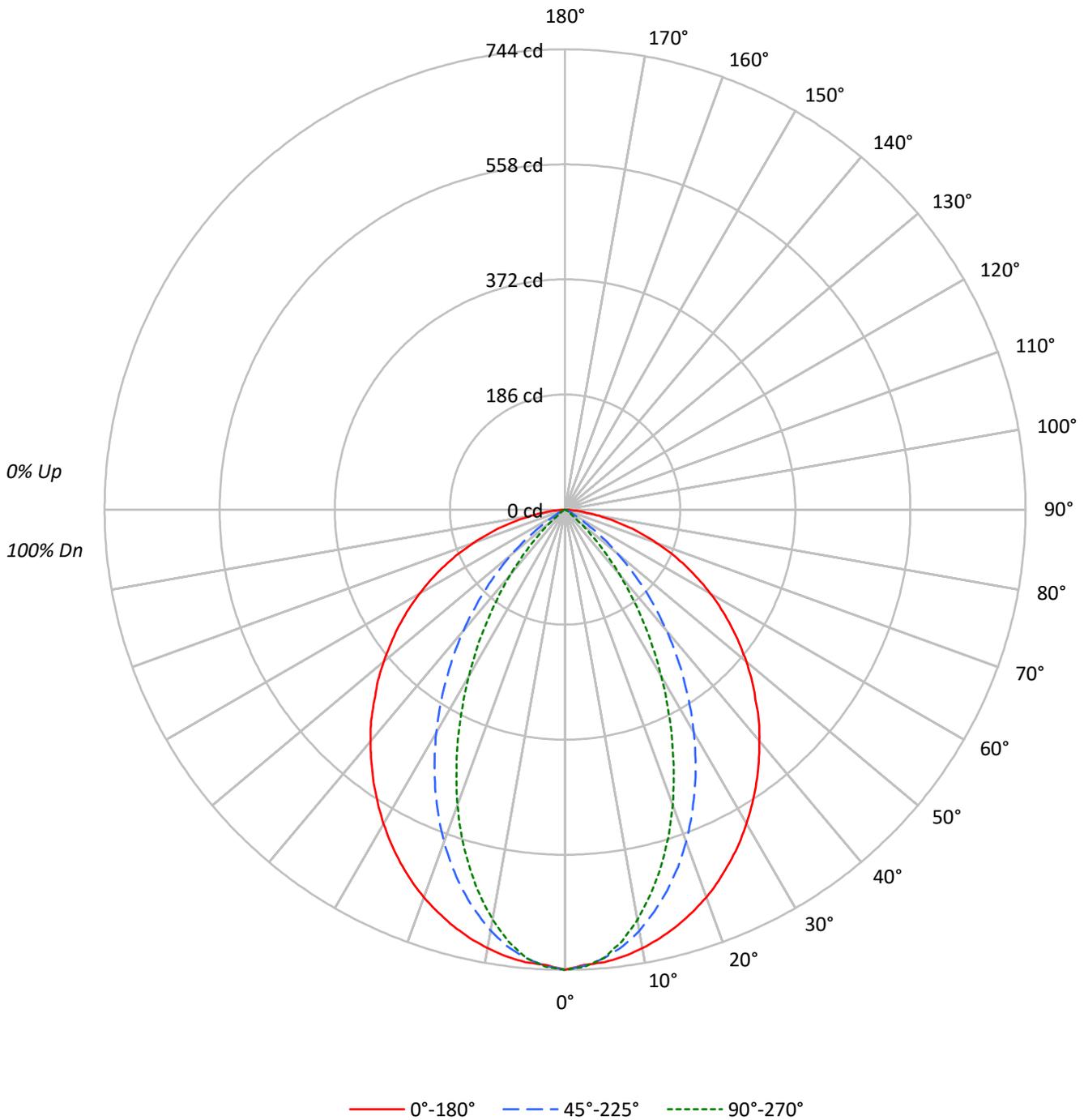
Lumens per Lamp: N/A
Luminaire Lumens: 1039.6 lumens
Efficiency: N/A
Efficacy: 54.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6577	6577	6577
5°	6518	6459	6453
10°	6462	6206	6043
15°	6382	5834	5474
20°	6278	5379	4782
25°	6140	4845	3991
30°	5986	4251	3172
35°	5817	3605	2362
40°	5639	2937	1574
45°	5444	2243	866
50°	5256	1535	241
55°	5047	832	157
60°	4797	258	90
65°	4485	167	46
70°	4053	75	18
75°	3488	24	0
80°	2637	0	0
85°	1106	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5444 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.6	6.6
10°-20°	180.2	17.3
20°-30°	232.8	22.4
30°-40°	222.5	21.4
40°-50°	166.4	16.0
50°-60°	99.0	9.5
60°-70°	50.3	4.8
70°-80°	17.5	1.7
80°-90°	2.4	0.2
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°	481.6	46.3
0°-40°	704.1	67.7
0°-60°	969.5	93.3
0°-90°	1039.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1039.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	734	740	728	724	727	70
15°	697	683	637	608	598	196
25°	629	586	497	431	409	290
35°	539	464	334	249	219	337
45°	435	334	179	96	69	337
55°	327	204	54	12	10	292
65°	214	82	8	3	2	212
75°	102	11	1	1	0	108
85°	11	0	0	0	0	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.9	743.9	743.9	743.9	743.9
2.5°	736.6	745.3	738.0	738.7	739.5
5°	734.4	740.2	727.8	724.2	727.1
7.5°	728.5	730.7	712.5	703.0	703.7
10°	719.8	717.6	691.3	675.3	673.1
12.5°	709.6	702.3	665.8	642.5	637.4
15°	697.2	682.6	637.4	607.5	598.0
17.5°	682.6	661.4	606.0	566.6	555.0
20°	667.3	638.1	571.7	522.9	508.3
22.5°	649.0	611.9	534.6	476.9	458.7
25°	629.4	585.6	496.6	431.0	409.1
27.5°	608.9	557.2	456.5	384.3	358.8
30°	586.3	527.3	416.4	336.9	310.7
32.5°	563.0	496.6	374.8	293.2	264.0
35°	538.9	464.5	334.0	248.7	218.8
37.5°	514.1	432.5	294.6	206.4	175.8
40°	488.6	399.6	254.5	166.3	136.4
42.5°	463.8	366.8	216.6	128.4	100.6
45°	435.4	334.0	179.4	95.5	69.3
47.5°	409.8	301.9	143.7	64.9	40.8
50°	382.1	267.6	111.6	37.9	17.5
52.5°	354.4	235.6	81.7	16.8	13.1
55°	327.4	203.5	54.0	12.4	10.2
57.5°	299.0	171.4	29.2	9.5	7.3
60°	271.3	140.0	14.6	7.3	5.1
62.5°	242.8	110.1	11.7	4.4	2.9
65°	214.4	82.4	8.0	2.9	2.2
67.5°	186.0	56.2	5.1	1.5	0.7
70°	156.8	34.3	2.9	0.7	0.7
72.5°	129.1	17.5	1.5	0.7	0.7
75°	102.1	10.9	0.7	0.7	0.0
77.5°	75.8	5.8	0.7	0.7	0.0
80°	51.8	2.2	0.0	0.0	0.0
82.5°	29.9	0.7	0.0	0.0	0.0
85°	10.9	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)