

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: P1056037

Luminaire Tested: S124R3DR-S575D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056037
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-S575D835-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

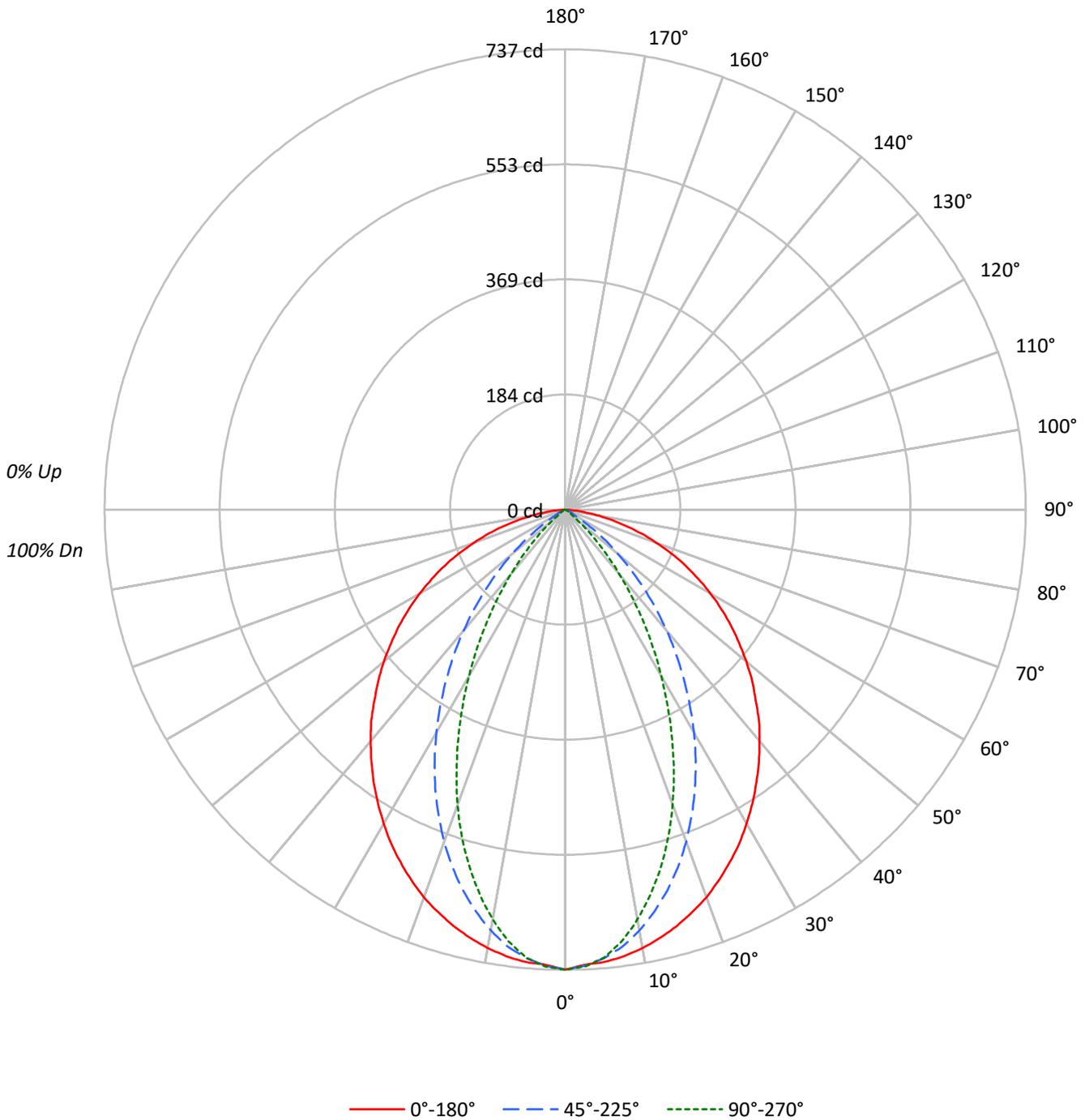
Lumens per Lamp: N/A
Luminaire Lumens: 1029.5 lumens
Efficiency: N/A
Efficacy: 53.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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°	6513	6513	6513
5°	6454	6396	6390
10°	6399	6146	5984
15°	6319	5778	5421
20°	6217	5327	4735
25°	6080	4798	3952
30°	5927	4209	3140
35°	5760	3569	2338
40°	5584	2908	1558
45°	5390	2221	858
50°	5205	1520	238
55°	4997	823	156
60°	4750	255	90
65°	4441	165	46
70°	4015	75	18
75°	3454	24	0
80°	2612	0	0
85°	1096	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5390 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	6.6
10°-20°	178.4	17.3
20°-30°	230.5	22.4
30°-40°	220.3	21.4
40°-50°	164.8	16.0
50°-60°	98.1	9.5
60°-70°	49.8	4.8
70°-80°	17.3	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°	476.9	46.3
0°-40°	697.2	67.7
0°-60°	960.0	93.3
0°-90°	1029.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1029.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	737	737	737	737	737	
5°	727	733	721	717	720	69
15°	690	676	631	602	592	195
25°	623	580	492	427	405	287
35°	534	460	331	246	217	334
45°	431	331	178	95	69	333
55°	324	202	53	12	10	289
65°	212	82	8	3	2	210
75°	101	11	1	1	0	107
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°	736.6	736.6	736.6	736.6	736.6
2.5°	729.4	738.0	730.8	731.5	732.3
5°	727.2	733.0	720.7	717.1	720.0
7.5°	721.4	723.6	705.5	696.1	696.9
10°	712.8	710.6	684.6	668.7	666.5
12.5°	702.6	695.4	659.3	636.2	631.2
15°	690.4	675.9	631.2	601.5	592.2
17.5°	675.9	655.0	600.1	561.1	549.6
20°	660.8	631.9	566.2	517.8	503.3
22.5°	642.7	605.9	529.3	472.3	454.2
25°	623.2	579.9	491.8	426.8	405.1
27.5°	603.0	551.7	452.1	380.6	355.3
30°	580.6	522.1	412.3	333.6	307.6
32.5°	557.5	491.8	371.2	290.3	261.4
35°	533.7	460.0	330.7	246.3	216.6
37.5°	509.1	428.2	291.7	204.4	174.0
40°	483.8	395.7	252.0	164.6	135.0
42.5°	459.3	363.2	214.5	127.1	99.7
45°	431.1	330.7	177.6	94.6	68.6
47.5°	405.8	299.0	142.3	64.3	40.4
50°	378.4	265.0	110.5	37.6	17.3
52.5°	351.0	233.3	80.9	16.6	13.0
55°	324.2	201.5	53.4	12.3	10.1
57.5°	296.1	169.7	28.9	9.4	7.2
60°	268.6	138.7	14.4	7.2	5.1
62.5°	240.5	109.0	11.6	4.3	2.9
65°	212.3	81.6	7.9	2.9	2.2
67.5°	184.1	55.6	5.1	1.4	0.7
70°	155.3	33.9	2.9	0.7	0.7
72.5°	127.8	17.3	1.4	0.7	0.7
75°	101.1	10.8	0.7	0.7	0.0
77.5°	75.1	5.8	0.7	0.7	0.0
80°	51.3	2.2	0.0	0.0	0.0
82.5°	29.6	0.7	0.0	0.0	0.0
85°	10.8	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)