

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: P1055605

Luminaire Tested: S123R3DR-S340D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055605
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-S340D835-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

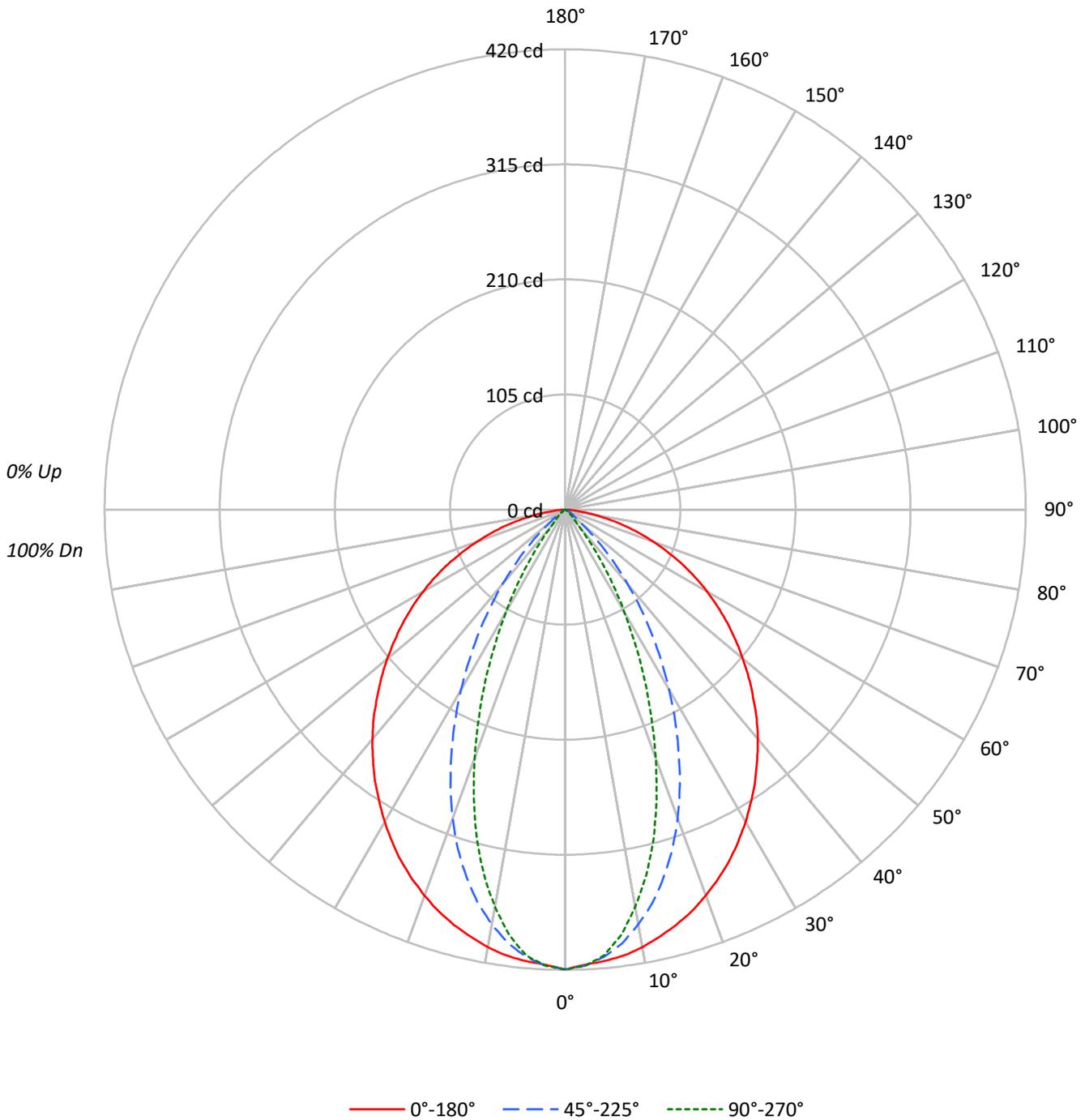
Lumens per Lamp: N/A
Luminaire Lumens: 491.1 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90			90	
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81			81	
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73			73	
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65			65	
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59			59	
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54			54	
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50			50	
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46			46	
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			43	
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			40	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5059	5059	5059
5°	5004	4957	4941
10°	4967	4705	4508
15°	4895	4335	3884
20°	4809	3848	3093
25°	4708	3261	2281
30°	4582	2642	1497
35°	4446	2012	820
40°	4301	1391	280
45°	4133	808	164
50°	3967	319	98
55°	3796	202	46
60°	3600	125	22
65°	3352	63	11
70°	3007	32	14
75°	2553	19	19
80°	1902	28	0
85°	719	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4133 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	7.8
10°-20°	97.6	19.9
20°-30°	116.5	23.7
30°-40°	98.8	20.1
40°-50°	67.1	13.7
50°-60°	41.6	8.5
60°-70°	21.1	4.3
70°-80°	8.6	1.7
80°-90°	1.3	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°	252.6	51.4
0°-40°	351.3	71.5
0°-60°	460.1	93.7
0°-90°	491.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	491.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	414	417	410	406	408	39
15°	392	382	347	320	311	111
25°	354	321	245	189	172	163
35°	302	242	137	74	56	189
45°	242	159	47	12	10	187
55°	181	80	10	4	2	161
65°	118	20	2	0	0	116
75°	55	4	0	0	0	58
85°	5	0	0	0	0	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	419.6	419.6	419.6	419.6	419.6
2.5°	415.7	421.3	416.5	416.1	416.5
5°	413.5	417.4	409.6	406.5	408.3
7.5°	410.4	412.2	399.1	391.3	391.3
10°	405.7	404.4	384.3	371.3	368.2
12.5°	399.1	393.9	367.8	347.3	341.7
15°	392.2	382.2	347.3	319.9	311.2
17.5°	384.3	369.1	325.1	289.4	276.8
20°	374.8	354.3	299.9	256.4	241.1
22.5°	364.7	338.2	273.3	222.4	205.4
25°	353.9	320.8	245.1	189.3	171.5
27.5°	341.7	302.5	217.2	157.6	138.0
30°	329.1	283.4	189.8	127.1	107.5
32.5°	315.6	263.3	162.4	99.2	81.0
35°	302.1	242.4	136.7	73.6	55.7
37.5°	287.7	221.5	111.9	50.9	35.3
40°	273.3	201.1	88.4	32.2	17.8
42.5°	258.5	179.8	67.0	16.1	12.2
45°	242.4	158.9	47.4	11.8	9.6
47.5°	227.2	138.8	31.3	9.6	7.4
50°	211.5	118.8	17.0	7.0	5.2
52.5°	195.9	99.7	12.2	5.2	3.5
55°	180.6	80.1	9.6	3.5	2.2
57.5°	165.0	63.1	7.4	2.2	1.3
60°	149.3	46.6	5.2	1.3	0.9
62.5°	133.6	32.2	3.5	0.9	0.4
65°	117.5	19.6	2.2	0.4	0.4
67.5°	101.0	13.5	1.3	0.4	0.4
70°	85.3	9.6	0.9	0.4	0.4
72.5°	69.6	6.1	0.4	0.4	0.0
75°	54.8	3.5	0.4	0.4	0.4
77.5°	40.5	1.3	0.4	0.4	0.0
80°	27.4	0.4	0.4	0.4	0.0
82.5°	15.2	0.0	0.4	0.4	0.0
85°	5.2	0.0	0.0	0.4	0.0
87.5°	0.0	0.0	0.0	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)