

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: P1059346

Luminaire Tested: S123RDR-S775D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059346
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S775D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

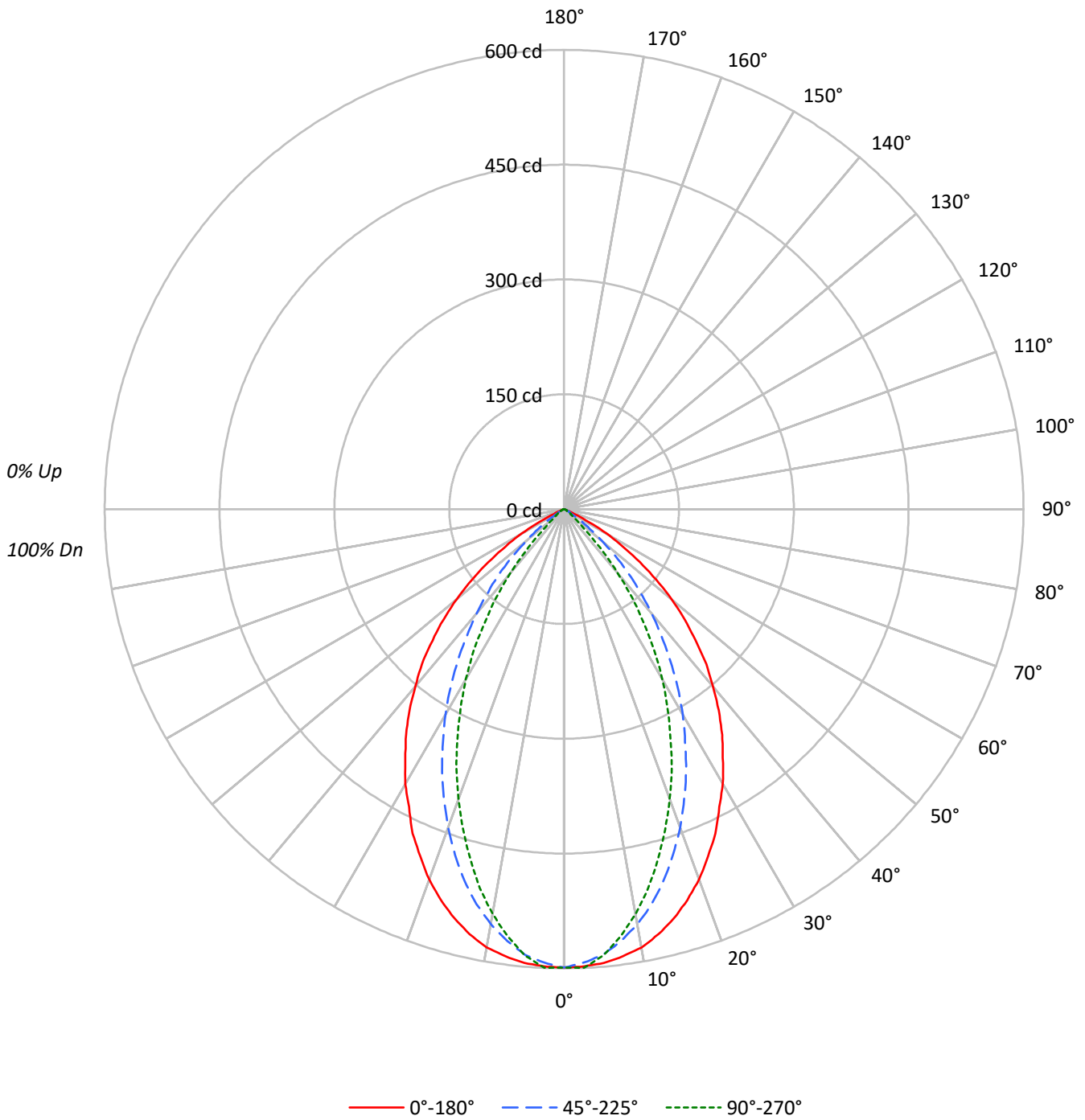
Lumens per Lamp: N/A
Luminaire Lumens: 683.4 lumens
Efficiency: N/A
Efficacy: 26.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7033	7033	7033
5°	7015	6888	6900
10°	6934	6566	6405
15°	6730	6109	5756
20°	6435	5532	5037
25°	6060	4886	4261
30°	5623	4198	3478
35°	5156	3470	2585
40°	4628	2721	1655
45°	4035	1986	689
50°	3347	1180	265
55°	2469	493	197
60°	1496	181	113
65°	403	108	53
70°	0	34	34
75°	0	0	45
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4035 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	8.1
10°-20°	142.3	20.8
20°-30°	177.3	25.9
30°-40°	158.6	23.2
40°-50°	100.1	14.6
50°-60°	41.9	6.1
60°-70°	7.9	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	374.8	54.8
0°-40°	533.3	78.0
0°-60°	675.3	98.8
0°-90°	683.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	683.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	599	599	599	599	599	
5°	595	594	584	586	585	56
15°	554	540	502	481	474	155
25°	468	430	377	344	329	214
35°	360	308	242	199	180	224
45°	243	189	120	64	42	187
55°	121	83	24	10	10	108
65°	14	11	4	2	2	20
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	598.9	598.9	598.9	598.9	598.9
2.5°	597.9	598.9	593.1	598.9	599.9
5°	595.1	594.1	584.4	586.4	585.4
7.5°	589.3	586.4	569.0	565.2	563.2
10°	581.5	573.8	550.7	541.0	537.2
12.5°	569.0	558.4	528.5	513.1	507.3
15°	553.6	540.1	502.5	481.2	473.5
17.5°	535.3	516.0	473.5	450.4	438.8
20°	515.0	488.0	442.7	414.7	403.1
22.5°	490.9	461.0	409.9	380.0	367.4
25°	467.7	430.1	377.1	344.3	328.9
27.5°	438.8	399.3	342.4	308.6	292.2
30°	414.7	369.4	309.6	272.0	256.5
32.5°	385.8	338.5	275.8	234.4	219.9
35°	359.7	307.7	242.1	198.7	180.3
37.5°	331.8	277.8	208.3	163.0	145.6
40°	301.9	247.9	177.5	127.3	108.0
42.5°	274.9	218.0	146.6	94.5	75.2
45°	243.0	189.0	119.6	63.7	41.5
47.5°	214.1	162.0	90.7	35.7	22.2
50°	183.2	134.1	64.6	18.3	14.5
52.5°	151.4	107.1	42.4	12.5	11.6
55°	120.6	82.9	24.1	9.6	9.6
57.5°	90.7	59.8	12.5	7.7	6.8
60°	63.7	39.5	7.7	5.8	4.8
62.5°	36.6	23.1	5.8	3.9	3.9
65°	14.5	10.6	3.9	1.9	1.9
67.5°	1.0	2.9	1.9	1.0	1.0
70°	0.0	0.0	1.0	1.0	1.0
72.5°	0.0	0.0	1.0	1.0	1.0
75°	0.0	0.0	0.0	0.0	1.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	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)