

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S123RDRP-S775D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S123RDRP-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

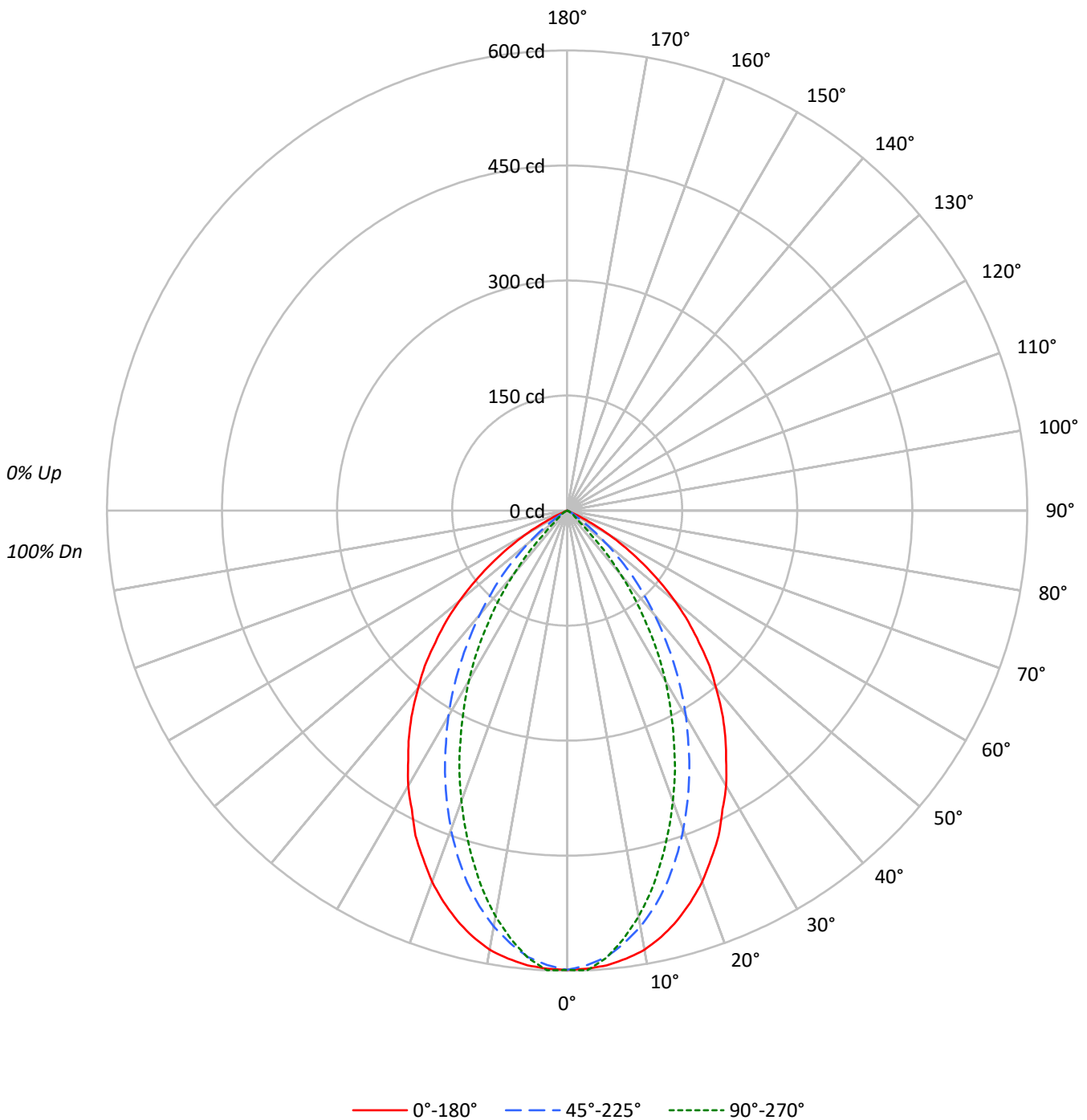
Lumens per Lamp: N/A
Luminaire Lumens: 683.4 lumens
Efficiency: N/A
Efficacy: 26.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1059346

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1059346

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-B

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	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	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



TEST NUMBER: P1059346

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-B

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	



TEST NUMBER: P1059346

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-B

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

TEST NUMBER: P1059346

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-B

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	11.97	13.15	12.33	13.46	13.77	0.00	0.00	0.00	0.00	0.00
	3H	11.81	12.84	12.19	13.17	13.54	0.00	0.00	0.00	0.00	0.00
	4H	11.72	12.68	12.13	13.03	13.42	0.00	0.00	0.00	0.00	0.00
	6H	11.63	12.50	12.05	12.88	13.27	0.00	0.00	0.00	0.00	0.00
	8H	11.58	12.40	12.01	12.79	13.20	0.00	0.00	0.00	0.00	0.00
	12H	11.53	12.31	11.96	12.70	13.13	0.00	0.00	0.00	0.00	0.00
4H	2H	11.73	12.68	12.13	13.03	13.42	0.00	0.00	0.00	0.00	0.00
	3H	11.56	12.33	11.98	12.74	13.14	0.00	0.00	0.00	0.00	0.00
	4H	11.46	12.14	11.89	12.56	13.01	0.00	0.00	0.00	0.00	0.00
	6H	11.36	11.95	11.83	12.39	12.87	0.00	0.00	0.00	0.00	0.00
	8H	11.30	11.84	11.77	12.29	12.76	0.00	0.00	0.00	0.00	0.00
	12H	11.24	11.72	11.73	12.20	12.68	0.00	0.00	0.00	0.00	0.00
8H	4H	11.30	11.84	11.77	12.29	12.76	0.00	0.00	0.00	0.00	0.00
	6H	11.18	11.62	11.69	12.12	12.60	0.00	0.00	0.00	0.00	0.00
	8H	11.11	11.50	11.64	12.02	12.52	0.00	0.00	0.00	0.00	0.00
	12H	11.05	11.40	11.57	11.90	12.48	0.00	0.00	0.00	0.00	0.00
12H	4H	11.24	11.72	11.73	12.20	12.68	0.00	0.00	0.00	0.00	0.00
	6H	11.11	11.50	11.64	12.02	12.52	0.00	0.00	0.00	0.00	0.00
	8H	11.05	11.40	11.57	11.90	12.48	0.00	0.00	0.00	0.00	0.00