

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: P1055656

Luminaire Tested: S123R3DRP-S775D830-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055656
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: S123R3DRP-S775D830-X4F0-XX-UDD-F-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

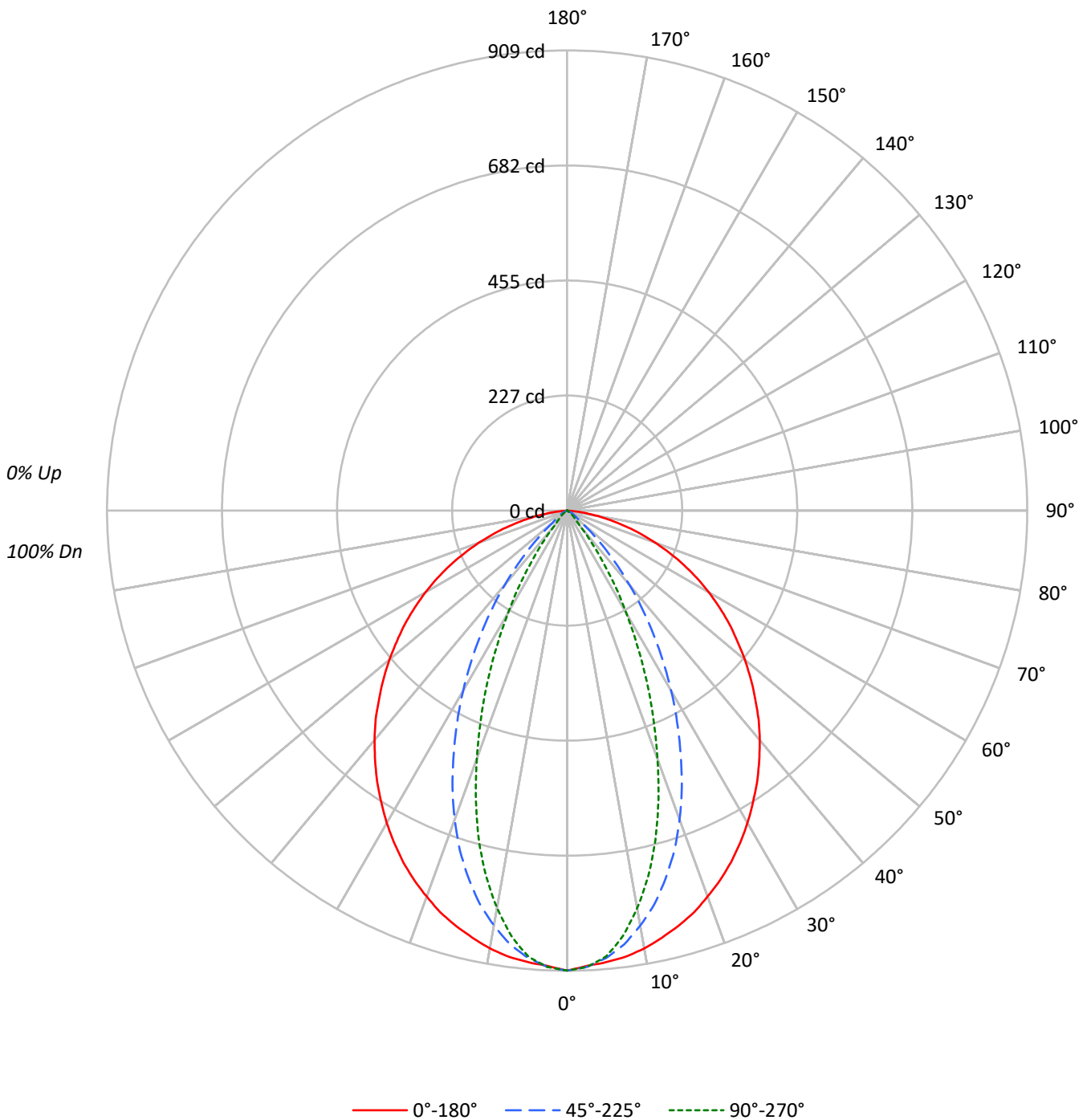
Lumens per Lamp: N/A
Luminaire Lumens: 1063.4 lumens
Efficiency: N/A
Efficacy: 40.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10954	10954	10954
5°	10837	10734	10700
10°	10754	10189	9762
15°	10599	9387	8411
20°	10412	8332	6700
25°	10194	7058	4941
30°	9920	5720	3241
35°	9627	4357	1775
40°	9316	3011	608
45°	8951	1751	353
50°	8592	690	212
55°	8223	435	99
60°	7796	272	46
65°	7260	134	26
70°	6511	67	32
75°	5534	42	42
80°	4124	62	0
85°	1563	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8951 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	7.8
10°-20°	211.4	19.9
20°-30°	252.2	23.7
30°-40°	213.9	20.1
40°-50°	145.4	13.7
50°-60°	90.1	8.5
60°-70°	45.6	4.3
70°-80°	18.6	1.7
80°-90°	2.8	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°	546.9	51.4
0°-40°	760.8	71.5
0°-60°	996.3	93.7
0°-90°	1063.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1063.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	909	909	909	909	909	
5°	895	904	887	880	884	85
15°	849	828	752	693	674	239
25°	766	695	531	410	371	353
35°	654	525	296	159	121	409
45°	525	344	103	25	21	406
55°	391	173	21	8	5	349
65°	254	42	5	1	1	251
75°	119	8	1	1	1	126
85°	11	0	0	1	0	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	908.6	908.6	908.6	908.6	908.6
2.5°	900.1	912.4	902.0	901.1	902.0
5°	895.4	903.9	886.9	880.3	884.1
7.5°	888.8	892.6	864.3	847.3	847.3
10°	878.4	875.6	832.3	804.0	797.4
12.5°	864.3	853.0	796.4	752.1	739.9
15°	849.2	827.6	752.1	692.8	673.9
17.5°	832.3	799.3	704.1	626.8	599.5
20°	811.5	767.2	649.4	555.2	522.2
22.5°	789.8	732.4	591.9	481.6	444.9
25°	766.3	694.7	530.6	410.0	371.4
27.5°	739.9	655.1	470.3	341.2	298.8
30°	712.6	613.6	410.9	275.2	232.8
32.5°	683.3	570.2	351.6	214.9	175.3
35°	654.1	525.0	296.0	159.3	120.6
37.5°	623.0	479.8	242.2	110.3	76.3
40°	591.9	435.5	191.3	69.7	38.6
42.5°	559.9	389.3	145.2	34.9	26.4
45°	525.0	344.0	102.7	25.4	20.7
47.5°	492.0	300.7	67.9	20.7	16.0
50°	458.1	257.3	36.8	15.1	11.3
52.5°	424.1	215.8	26.4	11.3	7.5
55°	391.2	173.4	20.7	7.5	4.7
57.5°	357.2	136.7	16.0	4.7	2.8
60°	323.3	100.9	11.3	2.8	1.9
62.5°	289.4	69.7	7.5	1.9	0.9
65°	254.5	42.4	4.7	0.9	0.9
67.5°	218.7	29.2	2.8	0.9	0.9
70°	184.7	20.7	1.9	0.9	0.9
72.5°	150.8	13.2	0.9	0.9	0.0
75°	118.8	7.5	0.9	0.9	0.9
77.5°	87.7	2.8	0.9	0.9	0.0
80°	59.4	0.9	0.9	0.9	0.0
82.5°	33.0	0.0	0.9	0.9	0.0
85°	11.3	0.0	0.0	0.9	0.0
87.5°	0.0	0.0	0.0	0.9	0.0
90°	0.0	0.0	0.0	0.0	0.0



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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	17.37	18.65	17.73	18.96	19.27	0.00	0.00	0.00	0.00	0.00
	3H	19.31	20.44	19.69	20.77	21.14	0.00	0.00	0.00	0.00	0.00
	4H	20.14	21.19	20.54	21.54	21.93	0.00	0.00	0.00	0.00	0.00
	6H	20.69	21.66	21.11	22.03	22.43	0.00	0.00	0.00	0.00	0.00
	8H	20.82	21.73	21.25	22.13	22.53	0.00	0.00	0.00	0.00	0.00
	12H	20.84	21.72	21.27	22.10	22.53	0.00	0.00	0.00	0.00	0.00
4H	2H	17.13	18.18	17.53	18.54	18.92	0.00	0.00	0.00	0.00	0.00
	3H	19.08	19.94	19.49	20.35	20.75	0.00	0.00	0.00	0.00	0.00
	4H	19.90	20.66	20.33	21.08	21.53	0.00	0.00	0.00	0.00	0.00
	6H	20.50	21.16	20.96	21.61	22.07	0.00	0.00	0.00	0.00	0.00
	8H	20.65	21.27	21.12	21.71	22.19	0.00	0.00	0.00	0.00	0.00
	12H	20.70	21.24	21.18	21.72	22.20	0.00	0.00	0.00	0.00	0.00
8H	4H	19.75	20.37	20.22	20.82	21.29	0.00	0.00	0.00	0.00	0.00
	6H	20.34	20.84	20.84	21.33	21.82	0.00	0.00	0.00	0.00	0.00
	8H	20.48	20.93	21.01	21.45	21.94	0.00	0.00	0.00	0.00	0.00
	12H	20.54	20.94	21.06	21.43	22.01	0.00	0.00	0.00	0.00	0.00
12H	4H	19.70	20.25	20.19	20.73	21.21	0.00	0.00	0.00	0.00	0.00
	6H	20.27	20.72	20.80	21.24	21.73	0.00	0.00	0.00	0.00	0.00
	8H	20.44	20.83	20.96	21.33	21.90	0.00	0.00	0.00	0.00	0.00