

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



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: P1059742

Luminaire Tested: S123RDR-H775D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059742
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-H775D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

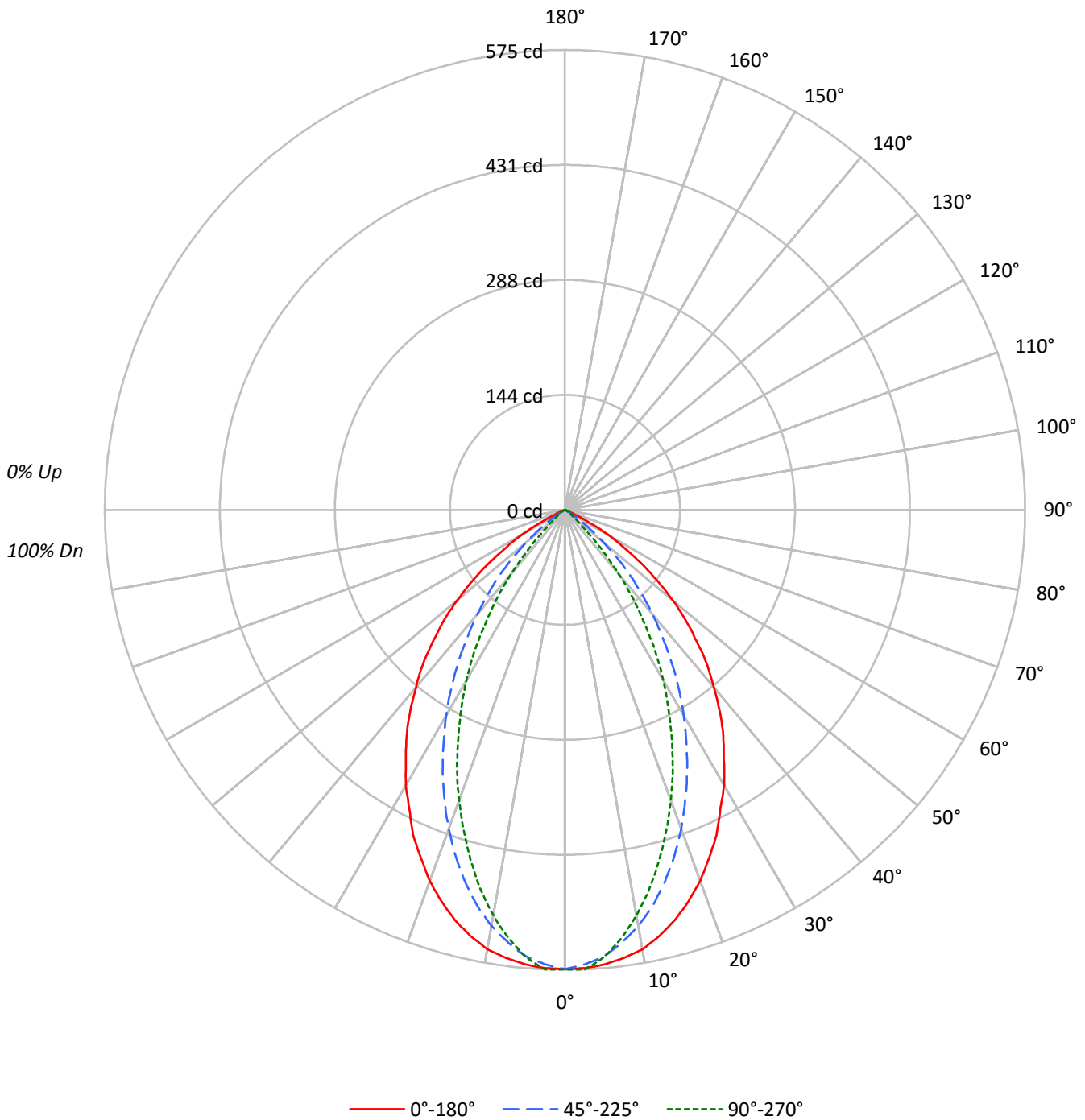
Lumens per Lamp: N/A
Luminaire Lumens: 655.3 lumens
Efficiency: N/A
Efficacy: 27.9 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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: P1059742

CATALOG NUMBER: S123RDR-H775D835-X4F0-XX-UDD-BVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1059742

CATALOG NUMBER: S123RDR-H775D835-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	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°	6744	6744	6744
5°	6726	6606	6617
10°	6650	6297	6142
15°	6453	5857	5520
20°	6171	5305	4831
25°	5811	4685	4086
30°	5392	4026	3336
35°	4944	3327	2478
40°	4438	2609	1588
45°	3869	1905	661
50°	3210	1133	254
55°	2367	473	188
60°	1433	174	108
65°	386	103	50
70°	0	31	31
75°	0	0	41
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3869 cd/sqm



TEST NUMBER: P1059742

CATALOG NUMBER: S123RDR-H775D835-X4F0-XX-UDD-BVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	8.1
10°-20°	136.4	20.8
20°-30°	170.1	25.9
30°-40°	152.0	23.2
40°-50°	96.0	14.6
50°-60°	40.1	6.1
60°-70°	7.5	1.2
70°-80°	0.2	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°	359.4	54.8
0°-40°	511.4	78.0
0°-60°	647.5	98.8
0°-90°	655.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	655.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	571	570	560	562	561	54
15°	531	518	482	462	454	149
25°	448	412	362	330	315	205
35°	345	295	232	190	173	215
45°	233	181	115	61	40	180
55°	116	80	23	9	9	104
65°	14	10	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: P1059742

CATALOG NUMBER: S123RDR-H775D835-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	574.3	574.3	574.3	574.3	574.3
2.5°	573.4	574.3	568.8	574.3	575.2
5°	570.6	569.7	560.4	562.3	561.4
7.5°	565.1	562.3	545.6	541.9	540.1
10°	557.7	550.3	528.1	518.8	515.1
12.5°	545.6	535.5	506.8	492.0	486.4
15°	530.8	517.9	481.8	461.5	454.1
17.5°	513.3	494.8	454.1	431.9	420.8
20°	493.8	467.9	424.5	397.7	386.6
22.5°	470.7	442.1	393.0	364.4	352.3
25°	448.5	412.5	361.6	330.2	315.4
27.5°	420.8	382.9	328.3	295.9	280.2
30°	397.7	354.2	296.9	260.8	246.0
32.5°	369.9	324.6	264.5	224.7	210.9
35°	344.9	295.0	232.1	190.5	172.9
37.5°	318.1	266.3	199.8	156.3	139.6
40°	289.5	237.7	170.2	122.1	103.6
42.5°	263.6	209.0	140.6	90.6	72.1
45°	233.0	181.3	114.7	61.0	39.8
47.5°	205.3	155.4	86.9	34.2	21.3
50°	175.7	128.5	62.0	17.6	13.9
52.5°	145.2	102.7	40.7	12.0	11.1
55°	115.6	79.5	23.1	9.2	9.2
57.5°	86.9	57.3	12.0	7.4	6.5
60°	61.0	37.9	7.4	5.5	4.6
62.5°	35.1	22.2	5.5	3.7	3.7
65°	13.9	10.2	3.7	1.8	1.8
67.5°	0.9	2.8	1.8	0.9	0.9
70°	0.0	0.0	0.9	0.9	0.9
72.5°	0.0	0.0	0.9	0.9	0.9
75°	0.0	0.0	0.0	0.0	0.9
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: P1059742
 CATALOG NUMBER: S123RDR-H775D835-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	11.82	12.99	12.18	13.31	13.62	0.00	0.00	0.00	0.00	0.00
	3H	11.66	12.69	12.04	13.02	13.39	0.00	0.00	0.00	0.00	0.00
	4H	11.57	12.53	11.98	12.88	13.27	0.00	0.00	0.00	0.00	0.00
	6H	11.48	12.35	11.90	12.72	13.12	0.00	0.00	0.00	0.00	0.00
	8H	11.43	12.25	11.86	12.64	13.05	0.00	0.00	0.00	0.00	0.00
	12H	11.38	12.16	11.81	12.55	12.98	0.00	0.00	0.00	0.00	0.00
4H	2H	11.58	12.53	11.98	12.88	13.27	0.00	0.00	0.00	0.00	0.00
	3H	11.41	12.18	11.83	12.59	12.99	0.00	0.00	0.00	0.00	0.00
	4H	11.31	11.99	11.74	12.41	12.86	0.00	0.00	0.00	0.00	0.00
	6H	11.21	11.80	11.68	12.24	12.72	0.00	0.00	0.00	0.00	0.00
	8H	11.15	11.69	11.62	12.14	12.61	0.00	0.00	0.00	0.00	0.00
	12H	11.09	11.56	11.58	12.05	12.53	0.00	0.00	0.00	0.00	0.00
8H	4H	11.15	11.69	11.62	12.14	12.61	0.00	0.00	0.00	0.00	0.00
	6H	11.03	11.47	11.54	11.97	12.45	0.00	0.00	0.00	0.00	0.00
	8H	10.96	11.35	11.49	11.87	12.37	0.00	0.00	0.00	0.00	0.00
	12H	10.90	11.25	11.42	11.75	12.33	0.00	0.00	0.00	0.00	0.00
12H	4H	11.09	11.57	11.58	12.05	12.53	0.00	0.00	0.00	0.00	0.00
	6H	10.96	11.35	11.49	11.87	12.37	0.00	0.00	0.00	0.00	0.00
	8H	10.90	11.25	11.42	11.75	12.33	0.00	0.00	0.00	0.00	0.00