

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: P1055675

Luminaire Tested: S123R3DR-S775D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055675
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S775D935-X4F0-XX-UDD-F-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

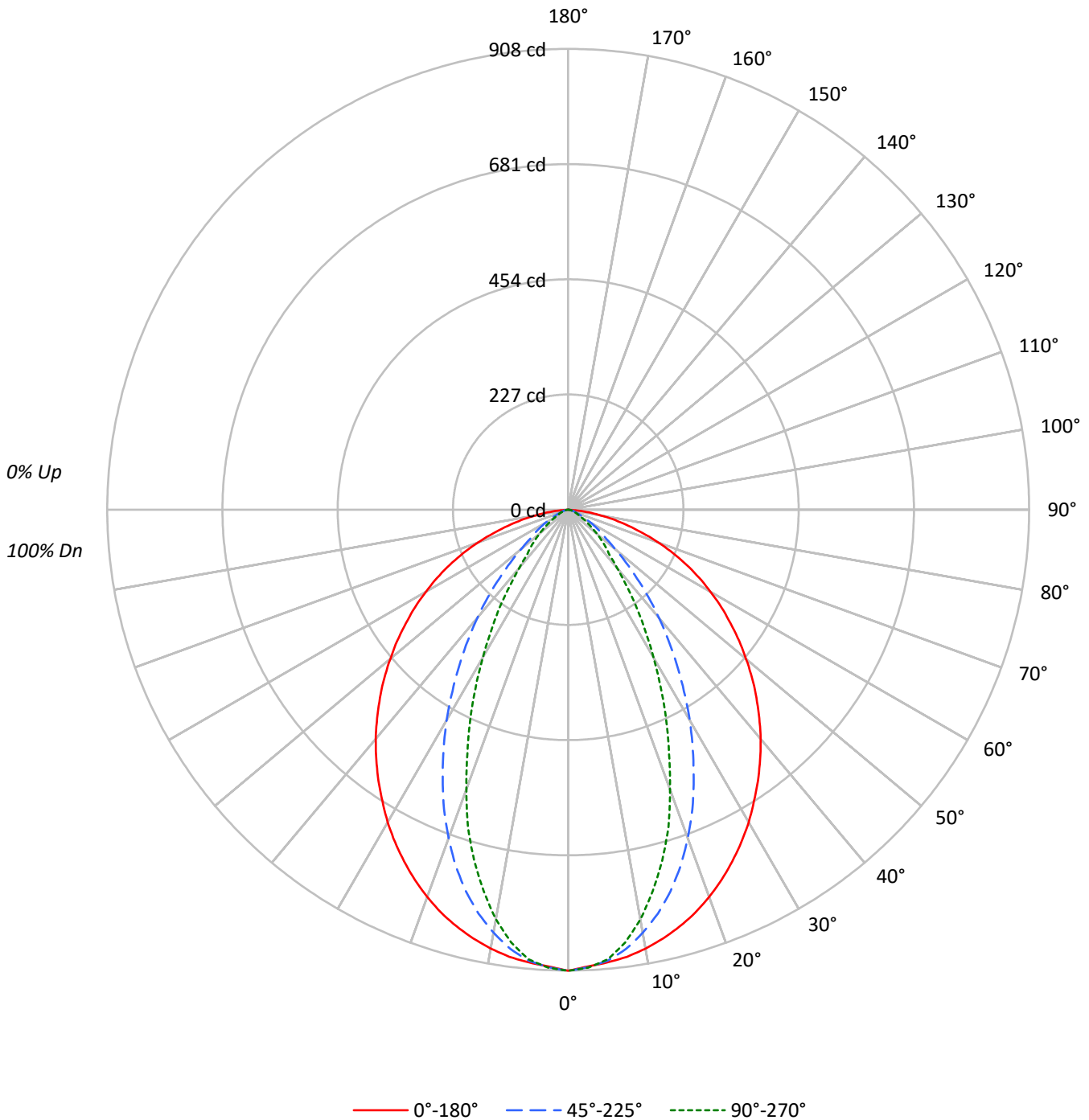
Lumens per Lamp: N/A
Luminaire Lumens: 1263.3 lumens
Efficiency: N/A
Efficacy: 47.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10952	10952	10952
5°	10837	10795	10764
10°	10751	10362	10035
15°	10607	9715	8931
20°	10417	8837	7522
25°	10171	7777	6070
30°	9901	6664	4675
35°	9593	5500	3460
40°	9283	4377	2358
45°	8939	3274	1777
50°	8575	2277	1388
55°	8198	1665	1013
60°	7805	1247	726
65°	7343	836	565
70°	6648	606	455
75°	5734	443	359
80°	4603	361	299
85°	2379	360	235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8939 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	6.6
10°-20°	218.6	17.3
20°-30°	274.6	21.7
30°-40°	255.8	20.2
40°-50°	195.8	15.5
50°-60°	130.1	10.3
60°-70°	70.2	5.6
70°-80°	28.7	2.3
80°-90°	5.5	0.4
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°	577.1	45.7
0°-40°	832.9	65.9
0°-60°	1158.8	91.7
0°-90°	1263.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1263.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	908	908	908	908	908	
5°	895	905	892	888	889	85
15°	850	836	778	733	716	239
25°	765	713	585	487	456	352
35°	652	555	374	264	235	407
45°	524	387	192	113	104	405
55°	390	226	79	55	48	349
65°	257	87	29	22	20	254
75°	123	21	10	9	8	132
85°	17	3	3	3	2	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	908.4	908.4	908.4	908.4	908.4
2.5°	900.6	911.8	902.3	903.2	903.2
5°	895.4	904.9	892.0	888.5	889.4
7.5°	888.5	894.6	873.1	861.9	860.1
10°	878.2	879.9	846.4	826.6	819.7
12.5°	865.3	859.3	815.4	782.6	769.7
15°	849.8	836.0	778.3	732.7	715.5
17.5°	832.6	809.3	736.2	676.7	656.1
20°	811.9	779.2	688.8	614.8	586.3
22.5°	789.5	747.3	638.9	551.0	519.2
25°	764.6	712.9	584.6	487.3	456.3
27.5°	738.7	675.9	531.2	427.1	395.2
30°	711.2	638.0	478.7	368.5	335.8
32.5°	681.0	596.7	424.5	314.3	281.5
35°	651.8	555.3	373.7	264.3	235.1
37.5°	620.8	514.0	324.6	220.4	187.7
40°	589.8	471.8	278.1	177.4	149.8
42.5°	557.1	429.6	234.2	141.2	119.7
45°	524.3	387.4	192.0	112.8	104.2
47.5°	491.6	345.3	155.0	97.3	88.7
50°	457.2	304.8	121.4	82.7	74.0
52.5°	424.5	264.3	94.7	68.0	60.3
55°	390.0	225.6	79.2	55.1	48.2
57.5°	358.2	186.0	65.4	43.0	37.9
60°	323.7	150.7	51.7	33.6	30.1
62.5°	291.0	118.0	39.6	26.7	24.1
65°	257.4	87.0	29.3	21.5	19.8
67.5°	223.9	62.9	22.4	17.2	16.4
70°	188.6	47.4	17.2	13.8	12.9
72.5°	155.0	33.6	12.9	11.2	10.3
75°	123.1	20.7	9.5	8.6	7.7
77.5°	94.7	12.1	6.9	6.9	6.0
80°	66.3	6.9	5.2	5.2	4.3
82.5°	40.5	4.3	3.4	3.4	3.4
85°	17.2	2.6	2.6	2.6	1.7
87.5°	2.6	0.9	0.9	0.9	0.9
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	18.13	19.49	18.49	19.80	20.11	6.70	8.05	7.06	8.37	8.68
	3H	19.88	21.09	20.26	21.42	21.78	7.36	8.57	7.74	8.90	9.26
	4H	20.58	21.71	20.99	22.06	22.44	7.56	8.68	7.96	9.03	9.41
	6H	21.10	22.13	21.51	22.50	22.89	7.68	8.71	8.09	9.08	9.47
	8H	21.24	22.22	21.67	22.61	23.01	7.71	8.69	8.14	9.08	9.49
	12H	21.29	22.22	21.72	22.61	23.04	7.72	8.66	8.15	9.04	9.47
4H	2H	17.94	19.06	18.34	19.41	19.79	7.25	8.38	7.66	8.73	9.11
	3H	19.73	20.65	20.14	21.05	21.46	8.06	8.98	8.47	9.38	9.78
	4H	20.43	21.25	20.86	21.67	22.11	8.31	9.14	8.75	9.55	10.00
	6H	21.00	21.71	21.46	22.15	22.62	8.51	9.22	8.97	9.67	10.13
	8H	21.17	21.83	21.64	22.28	22.75	8.56	9.22	9.03	9.67	10.14
	12H	21.26	21.84	21.74	22.33	22.80	8.59	9.18	9.08	9.66	10.14
8H	4H	20.30	20.96	20.77	21.41	21.88	8.63	9.29	9.10	9.74	10.21
	6H	20.86	21.40	21.36	21.89	22.37	8.88	9.42	9.38	9.91	10.39
	8H	21.03	21.52	21.55	22.03	22.52	8.96	9.45	9.48	9.96	10.45
	12H	21.14	21.57	21.65	22.06	22.63	9.04	9.47	9.55	9.96	10.53
12H	4H	20.26	20.85	20.74	21.33	21.80	8.67	9.26	9.16	9.74	10.21
	6H	20.80	21.28	21.32	21.80	22.29	8.92	9.41	9.44	9.92	10.41
	8H	20.99	21.42	21.51	21.92	22.49	9.05	9.47	9.56	9.97	10.54