

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: P1037359

Luminaire Tested: S123DS-B775DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037359
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DS-B775DB2750-4F0-XX-W2A-D_3500K
Description: Define 3 Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

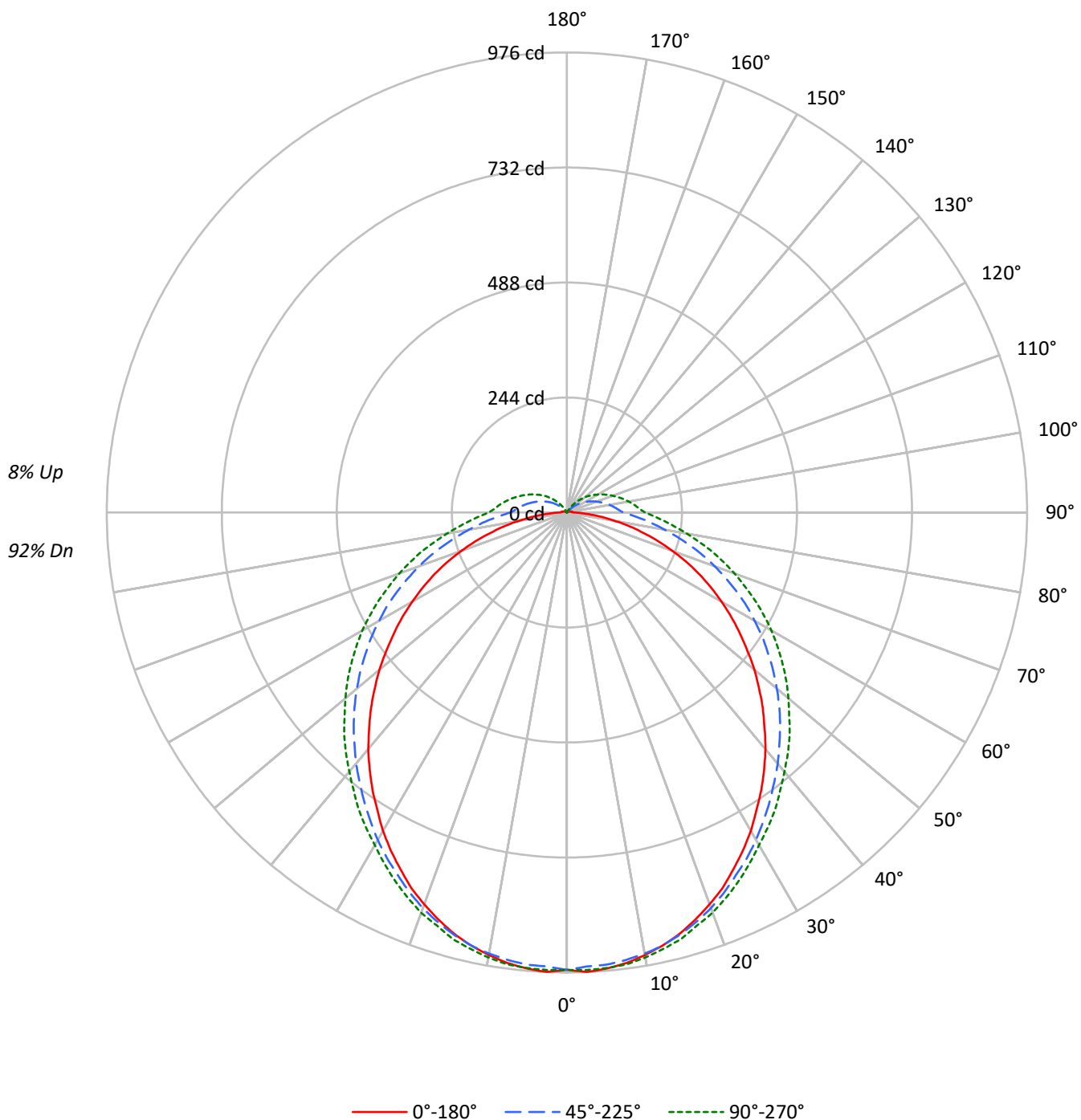
Lumens per Lamp: N/A
Luminaire Lumens: 3261.0 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.9
Input Voltage (V):
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	50	30	10
RCR																				
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	94	94	92
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76	76	76	73
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63	63	63	60
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52	52	52	50
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45	45	45	42
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39	39	39	36
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	24	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10444	10444	10444
5°	10496	10404	10484
10°	10421	10386	10479
15°	10307	10330	10436
20°	10134	10230	10352
25°	9917	10081	10244
30°	9696	9971	10128
35°	9444	9847	10111
40°	9208	9773	10085
45°	8946	9735	10169
50°	8691	9734	10265
55°	8411	9779	10473
60°	8146	9898	10785
65°	7888	10122	11199
70°	7484	10512	11909
75°	6991	11254	13233
80°	6484	13104	15986
85°	6397	19847	25590

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 45652 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	2.8
10°-20°	262.4	8.0
20°-30°	392.4	12.0
30°-40°	468.5	14.4
40°-50°	490.2	15.0
50°-60°	460.0	14.1
60°-70°	384.2	11.8
70°-80°	274.7	8.4
80°-90°	163.5	5.0
90°-100°	102.7	3.1
100°-110°	75.5	2.3
110°-120°	50.4	1.5
120°-130°	28.8	0.9
130°-140°	12.9	0.4
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	746.8	22.9
0°-40°	1215.3	37.3
0°-60°	2165.5	66.4
0°-90°	2988.0	91.6
90°-120°	228.6	7.0
90°-150°	273.0	8.4
90°-180°	273.0	8.4
0°-180°	3261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	971	969	963	971	970	92
15°	925	928	927	938	936	261
25°	835	846	849	862	862	385
35°	719	736	749	765	770	449
45°	588	613	640	660	668	453
55°	448	483	521	550	558	401
65°	310	351	397	429	440	306
75°	168	218	271	306	318	180
85°	52	105	161	197	207	53
90°	14	66	119	155	166	10
95°	12	53	105	137	148	9
105°	8	34	79	109	118	9
115°	5	18	56	81	90	6
125°	3	3	34	56	63	3
135°	2	1	13	32	37	2
145°	1	0	0	8	13	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	970.3	970.3	970.3	970.3	970.3
2.5°	975.6	972.4	964.0	972.4	971.4
5°	971.4	969.3	962.9	971.4	970.3
7.5°	964.0	964.0	957.6	968.2	967.1
10°	953.4	955.5	950.2	960.8	958.7
12.5°	940.7	943.9	940.7	950.2	948.1
15°	924.9	928.0	927.0	937.5	936.5
17.5°	905.8	912.2	911.1	920.6	918.5
20°	884.7	891.0	893.1	902.7	903.7
22.5°	862.5	868.8	872.0	884.7	883.6
25°	835.0	845.6	848.8	862.5	862.5
27.5°	808.6	820.2	826.6	838.2	839.2
30°	780.1	793.8	802.2	814.9	814.9
32.5°	748.3	764.2	775.8	789.6	792.7
35°	718.7	735.7	749.4	765.3	769.5
37.5°	687.0	706.1	721.9	739.9	743.1
40°	655.3	674.4	695.5	713.5	717.7
42.5°	620.4	644.8	667.0	687.0	693.4
45°	587.7	613.0	639.5	659.6	668.0
47.5°	552.8	581.3	610.9	633.1	639.5
50°	519.0	548.6	581.3	605.7	613.0
52.5°	483.0	514.8	551.7	577.1	586.6
55°	448.2	483.0	521.1	549.6	558.1
57.5°	414.3	450.3	491.5	520.0	529.5
60°	378.4	416.5	459.8	489.4	501.0
62.5°	344.6	383.7	430.2	459.8	470.4
65°	309.7	350.9	397.4	429.1	439.7
67.5°	274.8	318.2	364.7	399.5	408.0
70°	237.8	283.3	334.0	367.8	378.4
72.5°	204.0	249.4	302.3	337.2	347.7
75°	168.1	217.7	270.6	305.5	318.2
77.5°	137.4	187.1	239.9	276.9	286.4
80°	104.6	156.4	211.4	247.3	257.9
82.5°	76.1	129.0	185.0	220.9	231.5
85°	51.8	104.6	160.7	196.6	207.2
87.5°	31.7	84.6	138.5	174.4	185.0
90°	13.7	65.5	119.4	155.4	165.9
92.5°	12.7	58.1	111.0	145.9	155.4
95°	11.6	52.8	104.6	137.4	148.0
97.5°	10.6	48.6	98.3	130.0	140.6
100°	9.5	43.3	92.0	122.6	133.2
102.5°	8.5	38.1	85.6	115.2	125.8
105°	8.5	33.8	79.3	108.9	118.4
107.5°	7.4	29.6	72.9	101.5	111.0
110°	6.3	25.4	67.6	95.1	103.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.3	21.1	61.3	87.7	97.2
115°	5.3	18.0	56.0	81.4	89.8
117.5°	5.3	13.7	49.7	75.0	83.5
120°	4.2	9.5	44.4	68.7	76.1
122.5°	4.2	6.3	39.1	62.4	69.8
125°	3.2	3.2	33.8	56.0	63.4
127.5°	3.2	2.1	28.5	49.7	57.1
130°	3.2	2.1	23.3	43.3	49.7
132.5°	2.1	2.1	18.0	37.0	44.4
135°	2.1	1.1	12.7	31.7	37.0
137.5°	2.1	1.1	8.5	25.4	30.7
140°	1.1	1.1	4.2	20.1	25.4
142.5°	1.1	0.0	0.0	13.7	19.0
145°	1.1	0.0	0.0	8.5	12.7
147.5°	0.0	0.0	0.0	3.2	7.4
150°	0.0	0.0	0.0	0.0	2.1
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)