

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: P1031518

Luminaire Tested: S123DIW-B1165D460UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031518
REPORT IS A COMBINATION OF REPORTS P991107 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1165D460UB50-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

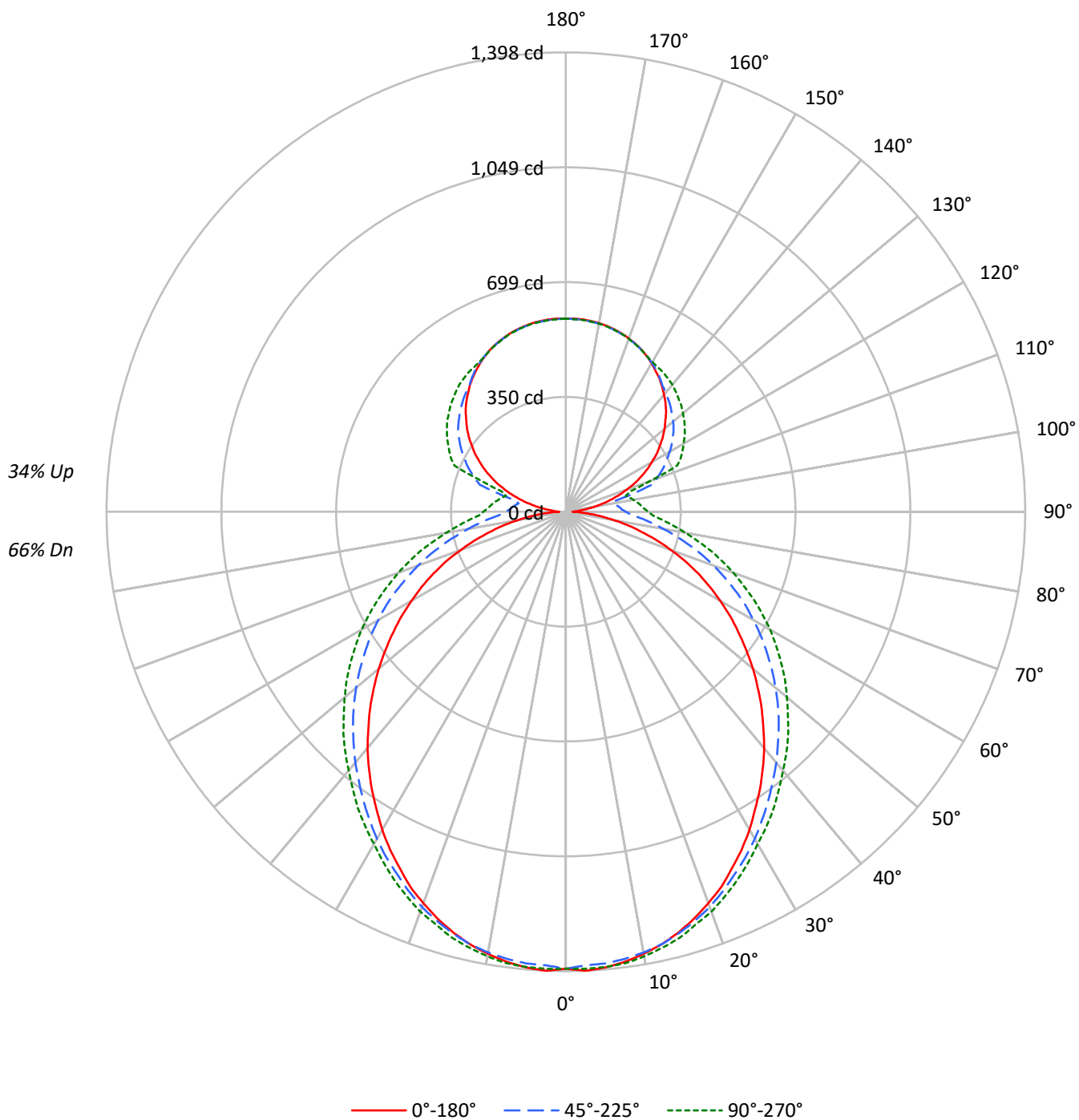
Lumens per Lamp: N/A
Luminaire Lumens: 6465.9 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 74.5
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66		
1	100	95	90	86	94	89	85	82	79	76	73	69	67	65	61	59	57	53		
2	91	82	75	69	85	77	71	66	68	64	59	60	56	53	53	50	47	43		
3	82	72	64	57	77	68	60	55	60	54	49	53	48	44	46	43	40	36		
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	31		
5	69	56	48	41	64	53	45	39	47	41	36	42	37	33	37	33	29	26		
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26	23		
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23	20		
8	55	41	33	28	51	39	32	27	35	29	24	31	26	22	28	24	20	18		
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16		
10	48	35	27	22	45	33	26	21	30	24	20	27	22	18	24	20	17	15		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14966	14966	14966
5°	15008	14527	14515
10°	14867	14134	14026
15°	14670	13699	13507
20°	14391	13215	12949
25°	14048	12670	12372
30°	13696	12176	11792
35°	13302	11658	11319
40°	12924	11183	10819
45°	12506	10726	10409
50°	12093	10272	9962
55°	11636	9805	9551
60°	11188	9329	9130
65°	10728	8820	8638
70°	10036	8250	8130
75°	9160	7602	7606
80°	8143	6943	7009
85°	7127	6410	6581

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12506 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.9	2.0
10°-20°	376.0	5.8
20°-30°	562.3	8.7
30°-40°	671.4	10.4
40°-50°	702.4	10.9
50°-60°	659.2	10.2
60°-70°	550.6	8.5
70°-80°	393.7	6.1
80°-90°	235.4	3.6
90°-100°	167.9	2.6
100°-110°	208.4	3.2
110°-120°	317.8	4.9
120°-130°	353.0	5.5
130°-140°	351.5	5.4
140°-150°	315.3	4.9
150°-160°	251.2	3.9
160°-170°	162.1	2.5
170°-180°	55.9	0.9
0°-30°	1070.2	16.6
0°-40°	1741.6	26.9
0°-60°	3103.2	48.0
0°-90°	4282.9	66.2
90°-120°	694.1	10.7
90°-150°	1713.9	26.5
90°-180°	2183.0	33.8
0°-180°	6465.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1390	1390	1390	1390	1390	
5°	1392	1389	1380	1392	1390	132
15°	1325	1330	1328	1344	1342	373
25°	1197	1212	1216	1236	1236	552
35°	1030	1054	1074	1097	1103	644
45°	842	878	916	945	957	649
55°	642	692	747	788	800	575
65°	444	503	570	615	630	439
75°	241	312	388	438	456	257
85°	74	150	230	282	297	76
90°	20	99	182	235	251	16
95°	43	84	164	214	229	45
105°	142	183	209	174	189	150
115°	252	272	331	372	386	249
125°	349	352	398	430	442	312
135°	431	432	451	479	486	332
145°	496	497	498	511	517	310
155°	544	544	544	546	544	251
165°	574	573	572	576	573	162
175°	588	586	586	589	586	56
180°	588	588	588	588	588	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1390.4	1390.4	1390.4	1390.4	1390.4
2.5°	1398.0	1393.5	1381.4	1393.5	1392.0
5°	1392.0	1388.9	1379.8	1392.0	1390.4
7.5°	1381.4	1381.4	1372.3	1387.4	1385.9
10°	1366.2	1369.2	1361.7	1376.8	1373.8
12.5°	1348.0	1352.6	1348.0	1361.7	1358.6
15°	1325.3	1329.9	1328.3	1343.5	1342.0
17.5°	1298.1	1307.1	1305.6	1319.3	1316.2
20°	1267.8	1276.9	1279.9	1293.5	1295.0
22.5°	1236.0	1245.0	1249.6	1267.8	1266.2
25°	1196.6	1211.7	1216.3	1236.0	1236.0
27.5°	1158.7	1175.4	1184.5	1201.1	1202.6
30°	1117.8	1137.5	1149.6	1167.8	1167.8
32.5°	1072.4	1095.1	1111.8	1131.4	1136.0
35°	1030.0	1054.2	1073.9	1096.6	1102.7
37.5°	984.5	1011.8	1034.5	1060.3	1064.8
40°	939.1	966.3	996.6	1022.4	1028.4
42.5°	889.1	923.9	955.7	984.5	993.6
45°	842.1	878.5	916.4	945.1	957.3
47.5°	792.2	833.1	875.5	907.3	916.4
50°	743.7	786.1	833.1	867.9	878.5
52.5°	692.2	737.6	790.6	827.0	840.6
55°	642.2	692.2	746.7	787.6	799.7
57.5°	593.7	645.2	704.3	745.2	758.8
60°	542.2	596.8	658.9	701.3	717.9
62.5°	493.8	549.8	616.5	658.9	674.0
65°	443.8	502.9	569.5	614.9	630.1
67.5°	393.8	455.9	522.6	572.5	584.7
70°	340.8	405.9	478.6	527.1	542.2
72.5°	292.3	357.5	433.2	483.2	498.3
75°	240.8	312.0	387.8	437.7	455.9
77.5°	196.9	268.1	343.8	396.8	410.5
80°	150.0	224.2	302.9	354.4	369.6
82.5°	109.1	184.8	265.1	316.6	331.7
85°	74.2	150.0	230.2	281.7	296.9
87.5°	45.4	121.2	198.4	249.9	265.1
90°	20.1	98.7	181.7	234.9	250.9
92.5°	28.2	90.7	170.4	223.4	237.5
95°	43.3	84.4	163.5	213.5	228.7
97.5°	63.6	105.9	154.9	203.8	219.3
100°	87.4	144.6	146.2	193.6	209.1
102.5°	114.7	162.8	155.0	183.0	199.0
105°	142.2	183.4	209.2	174.3	188.8
107.5°	170.0	205.7	274.4	248.0	204.4
110°	197.7	228.5	293.8	318.8	268.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	225.7	249.9	312.2	354.1	366.8
115°	251.7	272.4	330.9	371.6	385.5
117.5°	278.8	293.9	347.6	387.4	400.0
120°	302.2	313.6	364.9	403.3	413.9
122.5°	327.5	333.5	382.2	417.8	428.8
125°	348.6	352.1	397.8	430.5	442.0
127.5°	371.3	373.3	413.4	445.0	454.7
130°	392.3	394.3	426.3	456.8	465.1
132.5°	410.8	414.3	438.4	467.4	476.7
135°	431.4	432.5	450.9	479.4	485.7
137.5°	448.8	450.8	462.3	488.8	495.4
140°	464.8	467.4	473.3	497.8	504.5
142.5°	481.0	482.1	483.4	504.4	510.7
145°	495.8	497.4	498.2	511.2	517.3
147.5°	508.7	510.9	511.8	517.1	521.1
150°	521.8	523.1	524.0	524.9	526.6
152.5°	533.6	534.0	534.5	536.2	534.0
155°	544.5	543.7	544.1	546.3	543.7
157.5°	553.3	553.3	552.8	555.4	551.9
160°	561.1	560.7	560.2	562.9	559.8
162.5°	568.5	567.2	566.8	569.9	567.2
165°	574.2	572.9	572.5	576.0	572.9
167.5°	579.0	577.3	577.3	580.8	577.3
170°	583.0	581.2	581.2	584.7	581.2
172.5°	585.6	583.4	583.8	587.3	583.4
175°	587.8	585.6	586.0	589.1	585.6
177.5°	588.6	586.4	586.9	590.4	586.0
180°	587.8	587.8	587.8	587.8	587.8

(END OF REPORT)