

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: P1031947

Luminaire Tested: S123DIW-B775D460UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031947
REPORT IS A COMBINATION OF REPORTS P992092 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B775D460UB40-4F0-XX-W2A-F1
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

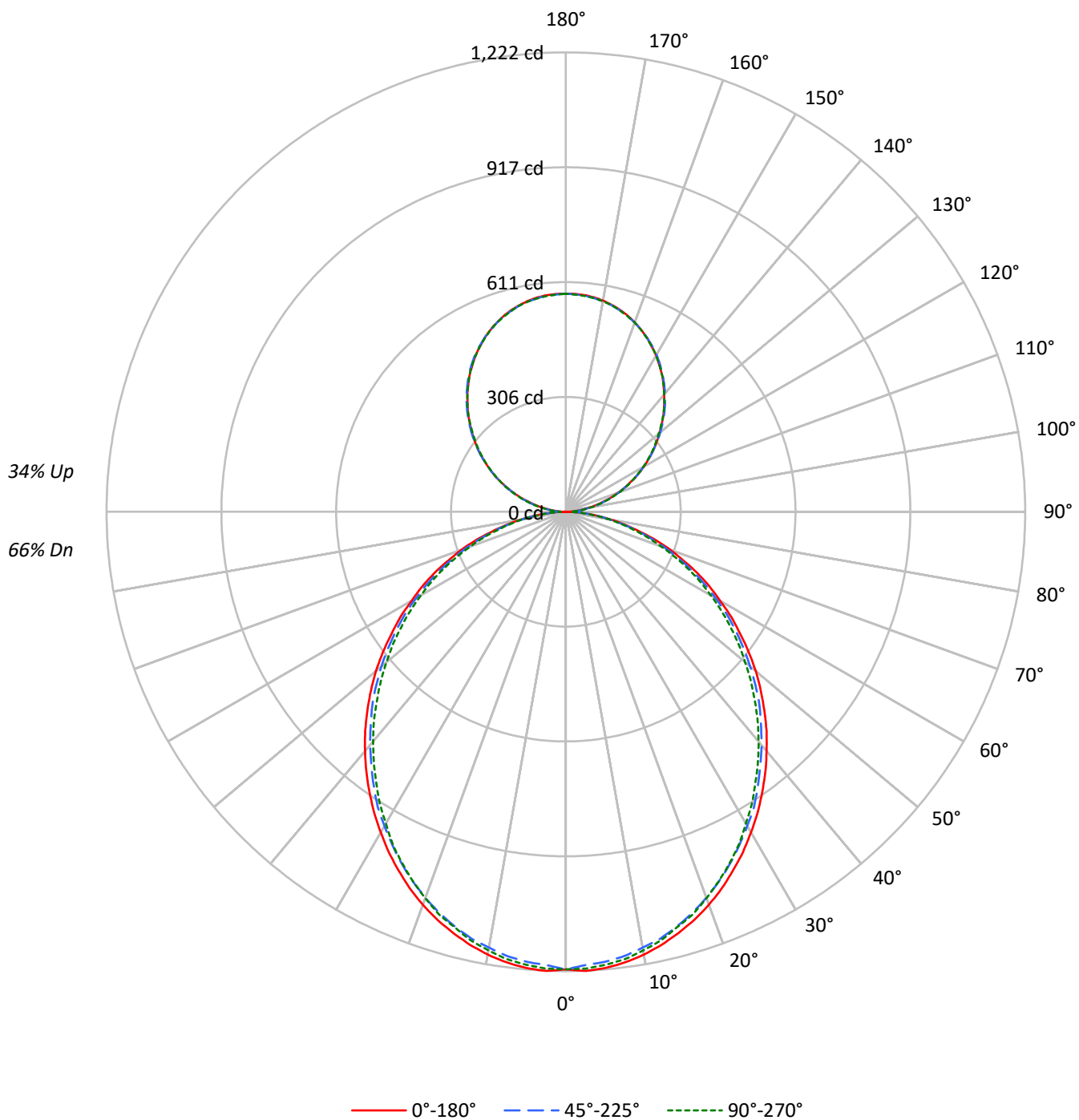
Lumens per Lamp: N/A
Luminaire Lumens: 4776.0 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 49.1
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	101	97	93	89	95	91	88	85	81	78	76	72	70	68	63	61	60	56		
2	92	85	78	73	87	80	74	69	71	67	63	63	59	56	55	53	50	47		
3	84	74	67	61	79	70	64	58	63	57	53	56	51	48	49	46	43	39		
4	77	66	58	51	72	62	55	49	56	50	45	49	45	41	44	40	37	34		
5	71	59	50	44	66	56	48	42	50	44	39	44	39	36	39	35	32	29		
6	65	53	44	38	61	50	43	37	45	39	34	40	35	31	36	32	28	26		
7	60	48	40	34	57	45	38	33	41	35	30	37	31	28	33	28	25	23		
8	56	43	36	30	53	41	34	29	37	31	27	34	28	25	30	26	23	20		
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	28	24	20	18		
10	49	37	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13103	13103	13103
5°	13135	12651	12631
10°	13018	12222	12097
15°	12837	11777	11514
20°	12630	11282	10937
25°	12361	10762	10320
30°	12067	10221	9670
35°	11760	9669	9025
40°	11437	9091	8391
45°	11083	8527	7728
50°	10723	7898	7063
55°	10259	7243	6387
60°	9783	6520	5671
65°	9336	5738	4922
70°	8693	4872	4048
75°	7764	3858	3143
80°	6705	2712	2223
85°	5225	1456	1113

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11083 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	2.4
10°-20°	324.0	6.8
20°-30°	478.6	10.0
30°-40°	558.9	11.7
40°-50°	561.9	11.8
50°-60°	493.6	10.3
60°-70°	367.6	7.7
70°-80°	209.2	4.4
80°-90°	60.7	1.3
90°-100°	37.3	0.8
100°-110°	113.0	2.4
110°-120°	192.4	4.0
120°-130°	253.0	5.3
130°-140°	284.4	6.0
140°-150°	279.6	5.9
150°-160°	235.4	4.9
160°-170°	156.7	3.3
170°-180°	54.9	1.1
0°-30°	917.4	19.2
0°-40°	1476.3	30.9
0°-60°	2531.7	53.0
0°-90°	3169.2	66.4
90°-120°	342.7	7.2
90°-150°	1159.8	24.3
90°-180°	1607.0	33.6
0°-180°	4776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1218	1213	1202	1212	1210	116
15°	1160	1156	1142	1150	1144	327
25°	1053	1047	1033	1034	1031	485
35°	911	904	891	884	879	570
45°	746	742	728	716	711	576
55°	566	565	552	540	535	507
65°	386	381	370	362	359	381
75°	204	200	197	192	188	218
85°	54	52	52	50	50	58
90°	0	5	11	13	14	6
95°	27	30	34	36	36	30
105°	102	103	108	108	108	110
115°	194	195	194	194	194	192
125°	283	285	284	282	280	253
135°	368	370	370	368	367	283
145°	446	447	448	448	446	279
155°	511	511	511	513	510	235
165°	556	555	555	558	554	157
175°	578	577	577	579	576	55
180°	580	580	580	580	580	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1217.3	1217.3	1217.3	1217.3	1217.3
2.5°	1222.5	1218.3	1206.8	1217.3	1216.2
5°	1218.3	1213.1	1201.6	1212.0	1209.9
7.5°	1208.9	1203.7	1192.1	1201.6	1200.5
10°	1196.3	1191.1	1177.5	1186.9	1184.8
12.5°	1179.6	1175.4	1162.8	1169.1	1168.1
15°	1159.7	1155.5	1141.9	1150.3	1144.0
17.5°	1137.7	1132.5	1118.9	1125.2	1123.1
20°	1112.6	1106.3	1092.7	1096.9	1093.8
22.5°	1084.3	1078.1	1064.5	1067.6	1063.4
25°	1052.9	1046.7	1033.1	1034.1	1031.0
27.5°	1020.5	1014.2	999.6	1000.6	997.5
30°	984.9	979.7	965.0	965.0	957.7
32.5°	949.3	942.0	931.5	924.2	921.1
35°	910.6	904.3	890.7	884.4	879.2
37.5°	871.9	863.5	849.9	842.6	839.4
40°	831.0	824.8	810.1	801.7	797.6
42.5°	790.2	782.9	768.2	759.9	755.7
45°	746.3	742.1	728.5	715.9	710.7
47.5°	703.4	697.1	684.5	672.0	667.8
50°	659.4	654.2	640.6	629.0	622.8
52.5°	613.3	610.2	595.5	586.1	579.8
55°	566.2	565.2	551.6	540.1	534.8
57.5°	522.3	518.1	507.6	497.2	490.9
60°	474.1	473.1	460.5	451.1	445.9
62.5°	431.2	428.1	415.5	406.1	403.0
65°	386.2	381.0	370.5	362.1	359.0
67.5°	338.1	333.9	325.5	318.2	314.0
70°	295.2	288.9	282.6	275.3	270.0
72.5°	250.2	246.0	238.6	232.4	230.3
75°	204.1	199.9	196.8	191.5	188.4
77.5°	163.3	161.2	157.0	152.8	152.8
80°	123.5	120.4	118.3	117.2	117.2
82.5°	84.8	84.8	84.8	82.7	81.6
85°	54.4	52.3	52.3	50.2	50.2
87.5°	27.2	24.1	23.0	22.0	22.0
90°	0.5	5.0	10.9	12.8	13.7
92.5°	13.7	16.4	19.1	20.5	19.6
95°	26.9	30.1	33.7	35.5	35.5
97.5°	44.2	46.5	49.2	51.5	51.0
100°	62.0	64.7	67.0	68.3	69.2
102.5°	82.5	83.8	87.0	88.4	87.9
105°	102.5	103.4	107.5	107.5	108.4
107.5°	126.2	126.6	128.5	129.8	129.4
110°	148.0	149.0	149.9	151.7	150.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	170.8	171.3	171.3	173.6	173.6
115°	193.6	195.0	194.1	194.5	194.1
117.5°	216.8	217.3	216.4	216.4	215.0
120°	238.2	241.0	238.7	238.2	237.3
122.5°	260.6	262.4	261.5	260.1	258.7
125°	283.3	284.7	283.8	282.0	280.2
127.5°	304.3	307.0	306.1	303.4	301.6
130°	325.2	328.9	327.5	325.7	322.5
132.5°	346.2	349.8	348.9	346.7	344.4
135°	367.6	370.3	369.9	368.1	367.2
137.5°	387.2	389.5	390.8	388.6	387.2
140°	407.7	410.0	410.4	410.0	406.8
142.5°	426.4	428.7	429.6	429.1	426.8
145°	446.0	446.9	448.2	447.8	446.0
147.5°	462.8	464.6	466.0	466.0	463.3
150°	480.6	481.5	482.4	482.4	479.7
152.5°	495.2	496.5	497.0	497.9	495.6
155°	510.7	510.7	511.1	512.9	509.7
157.5°	523.9	523.4	523.9	525.7	523.0
160°	536.2	535.2	535.2	537.5	535.7
162.5°	547.1	545.7	546.2	548.5	545.3
165°	556.2	554.8	554.8	557.6	554.4
167.5°	563.9	562.1	562.6	565.3	562.6
170°	570.3	568.5	568.5	571.7	568.5
172.5°	575.3	573.5	573.5	576.2	573.1
175°	578.5	576.7	576.7	579.4	576.2
177.5°	580.3	578.5	578.5	581.3	578.1
180°	579.9	579.9	579.9	579.9	579.9

(END OF REPORT)