

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: P645049

Luminaire Tested: OMN4DIP-SR4F0-75D100U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645049
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D100U940-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

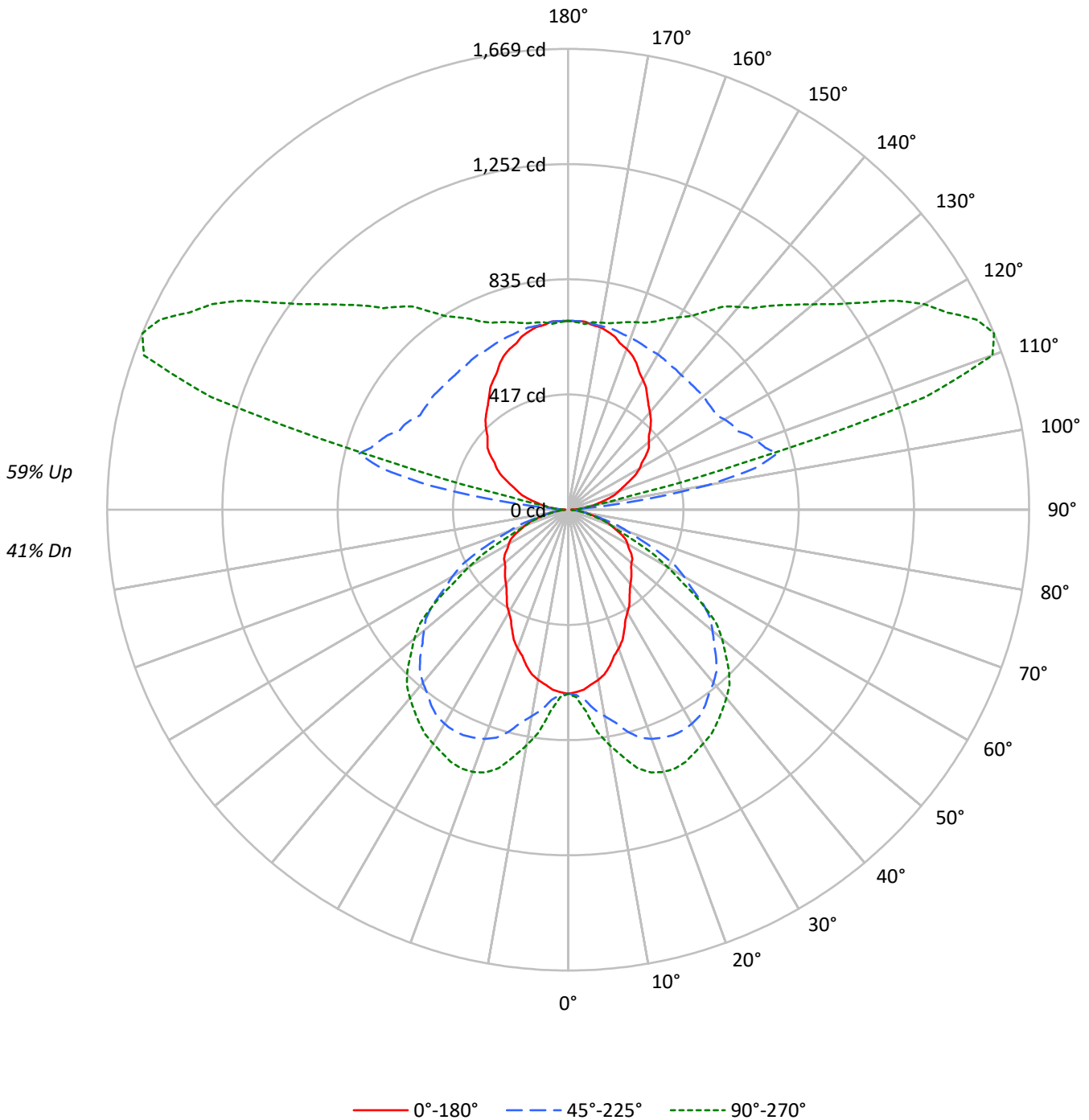
Lumens per Lamp: N/A
Luminaire Lumens: 6252.4 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.8
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: P645049

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U940-CLBOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P645049

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U940-CLBOOB-1DUDD-WW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41																				
1	96	92	88	84	87	84	80	78	69	66	64	55	53	52	42	41	41	35																				
2	87	80	74	69	79	73	68	64	60	56	53	48	46	43	37	36	34	29																				
3	79	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	24																				
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21																				
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	24	21	18																				
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	24	21	19	16																				
7	56	44	36	31	51	41	34	29	34	28	25	27	23	20	21	19	16	14																				
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	20	17	15	12																				
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11																				
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10760	10760	10760
5°	10600	11203	11856
10°	10265	12449	14203
15°	9765	13911	16191
20°	9186	15177	17361
25°	8558	16041	17945
30°	8004	16699	18232
35°	7636	17044	18542
40°	7381	17245	18782
45°	7396	17303	18790
50°	7513	17128	18256
55°	7851	16794	16577
60°	8005	15613	13462
65°	8111	13677	9887
70°	7756	10754	7681
75°	6962	8022	6475
80°	5904	6341	5188
85°	5743	5169	4298

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 18790 cd/sqm



TEST NUMBER: P645049

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U940-CLBOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	1.1
10°-20°	227.1	3.6
20°-30°	377.3	6.0
30°-40°	476.0	7.6
40°-50°	508.8	8.1
50°-60°	449.1	7.2
60°-70°	288.2	4.6
70°-80°	127.8	2.0
80°-90°	34.7	0.6
90°-100°	92.8	1.5
100°-110°	604.7	9.7
110°-120°	817.6	13.1
120°-130°	664.7	10.6
130°-140°	532.8	8.5
140°-150°	419.8	6.7
150°-160°	306.9	4.9
160°-170°	190.7	3.0
170°-180°	65.0	1.0
0°-30°	672.8	10.8
0°-40°	1148.7	18.4
0°-60°	2106.6	33.7
0°-90°	2557.3	40.9
90°-120°	1515.2	24.2
90°-150°	3132.5	50.1
90°-180°	3695.0	59.1
0°-180°	6252.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	654	674	691	715	732	61
15°	584	674	832	932	969	164
25°	480	652	900	985	1007	221
35°	387	595	865	921	941	243
45°	324	509	758	805	823	250
55°	279	400	597	600	589	247
65°	212	268	358	291	259	208
75°	112	124	129	110	104	119
85°	31	26	28	25	23	33
90°	11	15	18	22	19	9
95°	52	75	42	44	50	51
105°	144	214	783	996	658	153
115°	244	293	676	1396	1630	243
125°	344	391	637	1107	1308	306
135°	422	468	637	911	1045	325
145°	499	541	641	793	877	313
155°	585	606	654	719	753	269
165°	650	658	671	688	701	182
175°	684	688	684	680	675	65
180°	684	684	684	684	684	

TEST NUMBER: P645049

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U940-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.4	666.4	666.4	666.4	666.4
2.5°	661.4	671.1	671.3	675.2	680.0
5°	654.0	673.7	691.2	714.8	731.5
7.5°	638.5	673.6	729.6	784.5	811.7
10°	626.1	674.6	759.3	832.9	866.3
12.5°	610.0	674.2	789.1	877.7	915.9
15°	584.2	673.6	832.2	932.2	968.6
17.5°	554.5	670.8	866.0	966.2	998.0
20°	534.6	668.0	883.3	978.6	1010.4
22.5°	512.3	661.4	893.2	984.7	1014.1
25°	480.4	651.6	900.4	984.6	1007.3
27.5°	449.1	637.6	900.7	972.1	991.5
30°	429.3	626.2	895.7	959.7	977.9
32.5°	411.9	613.7	885.8	944.8	964.2
35°	387.4	595.0	864.7	921.0	940.7
37.5°	366.3	573.6	838.1	892.8	915.9
40°	350.2	556.3	818.2	872.9	891.1
42.5°	337.8	537.8	794.7	848.0	863.8
45°	323.9	508.7	757.8	804.7	822.9
47.5°	309.0	478.7	715.3	759.6	771.4
50°	299.1	456.7	681.9	722.3	726.8
52.5°	292.9	433.5	649.6	675.1	676.0
55°	278.9	400.2	596.6	599.5	588.9
57.5°	260.3	361.3	529.4	514.2	488.8
60°	247.9	334.3	483.5	453.2	416.9
62.5°	235.6	308.6	435.2	386.1	343.7
65°	212.3	268.4	358.0	290.6	258.8
67.5°	185.3	224.1	281.1	217.4	196.2
70°	164.3	194.6	227.8	177.9	162.7
72.5°	144.4	165.0	184.4	147.0	139.2
75°	111.6	123.7	128.6	109.9	103.8
77.5°	82.1	82.7	89.3	77.4	74.4
80°	63.5	60.5	68.2	58.8	55.8
82.5°	48.7	44.4	49.6	42.7	40.9
85°	31.0	26.4	27.9	24.8	23.2
87.5°	18.3	15.5	16.0	15.6	13.7
90°	10.8	15.1	17.9	22.1	19.1
92.5°	24.9	25.5	27.0	33.5	33.8
95°	51.5	74.8	42.2	43.5	50.4
97.5°	76.3	133.1	258.8	77.7	66.1
100°	95.7	162.6	512.2	152.5	100.5
102.5°	115.1	186.6	691.1	396.1	216.2
105°	144.2	214.2	783.1	996.0	658.1
107.5°	174.8	225.9	747.9	1448.9	1355.7
110°	194.2	243.2	727.2	1522.4	1634.4



TEST NUMBER: P645049

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U940-CLBOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	214.9	263.8	706.6	1479.4	1668.8
115°	244.3	293.3	675.6	1396.1	1630.1
117.5°	275.8	324.2	667.9	1306.0	1546.7
120°	298.7	344.9	654.1	1237.4	1488.2
122.5°	315.9	364.3	635.7	1178.4	1409.0
125°	344.4	390.7	636.9	1107.2	1307.5
127.5°	367.8	416.1	636.2	1024.2	1222.4
130°	381.6	432.1	639.7	967.7	1157.0
132.5°	396.3	446.8	637.2	942.9	1098.5
135°	421.5	467.8	636.6	910.6	1045.2
137.5°	443.0	492.6	636.6	874.9	990.1
140°	460.2	506.5	636.6	854.0	959.1
142.5°	477.4	520.3	640.0	829.8	928.2
145°	498.9	541.0	640.9	793.3	877.4
147.5°	524.7	561.7	646.0	767.1	831.8
150°	541.9	575.6	649.5	749.6	804.3
152.5°	559.1	589.4	649.5	735.6	780.2
155°	585.0	606.0	653.8	719.0	752.7
157.5°	605.6	625.8	658.9	708.5	732.9
160°	619.4	636.2	662.4	701.6	722.6
162.5°	629.7	646.5	665.8	698.0	712.3
165°	649.5	657.9	671.0	688.5	701.1
167.5°	660.7	668.2	675.3	684.0	691.6
170°	671.0	675.2	675.3	684.0	688.2
172.5°	674.4	682.0	678.7	680.5	684.7
175°	683.9	688.1	683.9	679.5	675.3
177.5°	683.9	687.2	683.9	683.8	680.4
180°	683.9	683.9	683.9	683.9	683.9

(END OF REPORT)