

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: P645109

Luminaire Tested: OMN4DIP-SR4F0-75D150U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645109
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-SR4F0-75D150U940-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

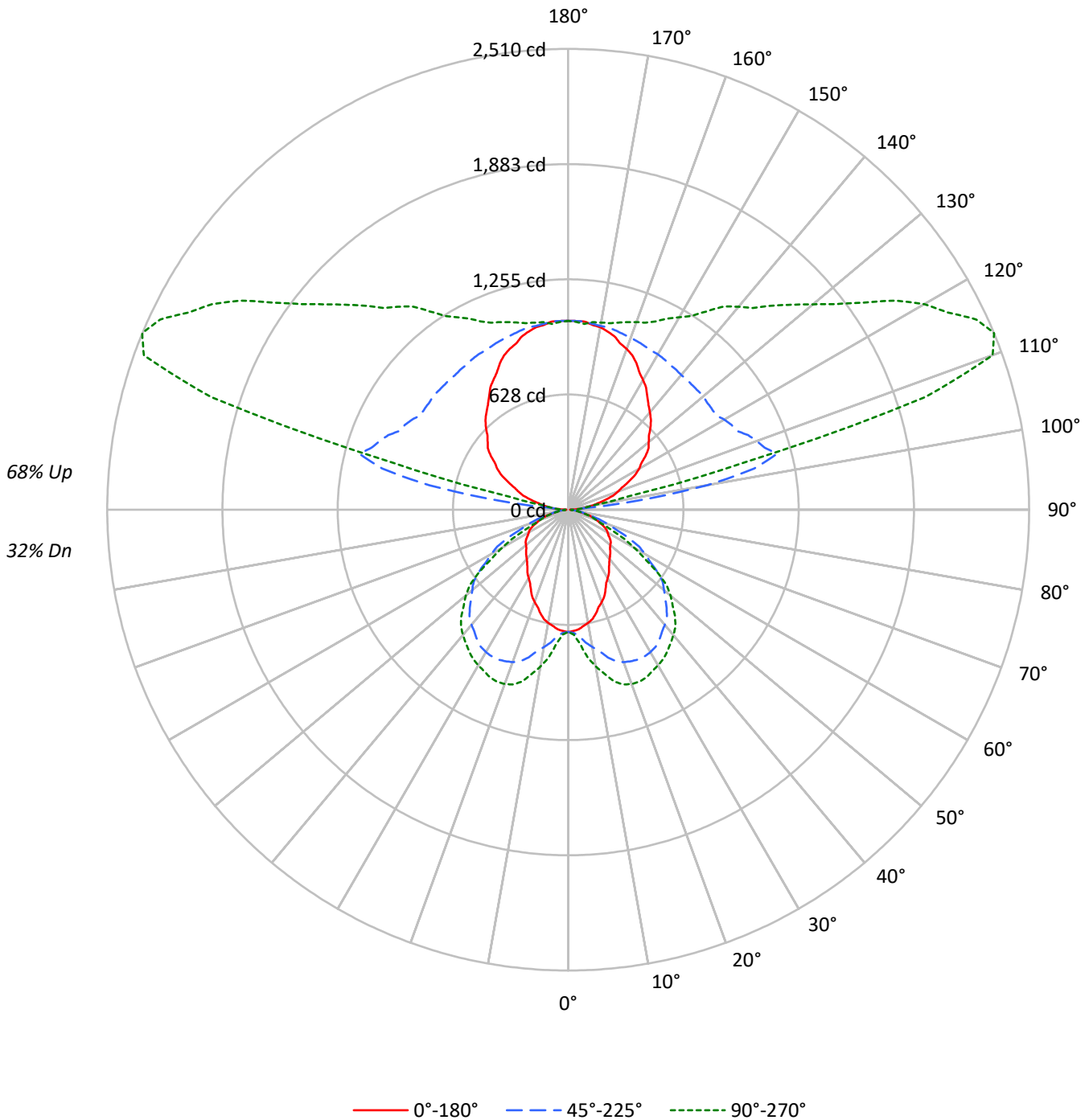
Lumens per Lamp: N/A
Luminaire Lumens: 8105.5 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.4
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									
RC	80									70									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	50	30	10	0										
RCR																																					
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	39	39	39	39	39	39	39	39	39	32										
1	94	90	86	82	84	81	78	75	64	62	60	49	47	46	35	34	33	33	33	33	33	33	33	33	33	33	27										
2	85	78	72	67	76	70	65	61	56	53	50	43	41	39	31	29	28	28	28	28	28	28	28	28	28	28	22										
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24	24	24	24	24	24	24	24	24	24	19										
4	71	60	53	47	64	55	48	43	44	39	35	33	30	28	24	22	20	20	20	20	20	20	20	20	20	20	16										
5	65	54	46	40	58	49	42	37	39	34	30	30	26	24	21	19	17	17	17	17	17	17	17	17	17	17	14										
6	60	48	40	34	53	43	37	32	35	30	26	27	23	21	19	17	15	15	15	15	15	15	15	15	15	15	12										
7	55	43	35	30	49	39	32	27	31	26	23	24	21	18	18	15	13	13	13	13	13	13	13	13	13	13	11										
8	51	39	31	26	46	35	29	24	28	24	20	22	19	16	16	14	12	12	12	12	12	12	12	12	12	12	9										
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	15	12	11	11	11	11	11	11	11	11	11	11	8										
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	11	10	10	10	10	10	10	10	10	10	10	8										

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	0.8
10°-20°	227.1	2.8
20°-30°	377.3	4.7
30°-40°	476.0	5.9
40°-50°	508.8	6.3
50°-60°	449.1	5.5
60°-70°	288.2	3.6
70°-80°	127.8	1.6
80°-90°	35.4	0.4
90°-100°	135.2	1.7
100°-110°	906.8	11.2
110°-120°	1227.8	15.1
120°-130°	998.6	12.3
130°-140°	801.2	9.9
140°-150°	631.5	7.8
150°-160°	461.7	5.7
160°-170°	286.8	3.5
170°-180°	97.8	1.2
0°-30°	672.8	8.3
0°-40°	1148.7	14.2
0°-60°	2106.6	26.0
0°-90°	2558.1	31.6
90°-120°	2269.8	28.0
90°-150°	4701.1	58.0
90°-180°	5547.0	68.4
0°-180°	8105.5	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	17	22	29	26	10
95°	69	107	60	63	74	71
105°	211	317	1176	1498	990	224
115°	364	438	1014	2099	2452	361
125°	516	585	956	1665	1967	458
135°	634	704	958	1370	1572	488
145°	750	814	964	1193	1320	471
155°	880	912	983	1082	1132	404
165°	977	990	1009	1036	1055	274
175°	1029	1035	1029	1022	1016	97
180°	1029	1029	1029	1029	1029	



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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	15.9	16.8	16.9	15.0
90°	10.8	17.2	22.2	28.6	25.6
92.5°	30.1	32.8	36.5	47.0	49.0
95°	68.8	107.0	59.5	63.1	74.3
97.5°	107.1	194.9	386.3	115.3	98.6
100°	136.9	239.9	768.1	227.8	150.4
102.5°	166.7	276.0	1037.2	594.8	325.1
105°	211.4	317.4	1175.7	1497.5	989.9
107.5°	257.7	335.9	1122.6	2178.7	2039.3
110°	287.5	361.9	1091.6	2289.2	2458.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	318.6	392.9	1060.5	2224.6	2510.3
115°	363.6	438.0	1013.9	2099.3	2452.0
117.5°	411.2	484.6	1002.3	1963.7	2326.5
120°	446.1	515.7	981.6	1860.5	2238.5
122.5°	472.0	545.5	954.5	1771.8	2119.5
125°	515.8	585.3	955.7	1664.7	1966.8
127.5°	551.7	623.8	955.4	1540.1	1838.7
130°	572.4	648.4	960.6	1455.7	1740.4
132.5°	595.8	671.8	958.1	1418.3	1652.4
135°	634.0	703.6	957.5	1369.7	1572.2
137.5°	666.4	741.0	957.5	1316.0	1489.3
140°	692.3	761.9	957.5	1284.6	1442.8
142.5°	718.1	782.7	962.7	1248.1	1396.2
145°	750.5	813.8	964.0	1193.3	1319.8
147.5°	789.3	845.0	971.8	1153.8	1251.3
150°	815.2	865.8	976.9	1127.6	1209.8
152.5°	841.1	886.6	976.9	1106.6	1173.6
155°	879.9	911.5	983.4	1081.6	1132.2
157.5°	910.9	941.3	991.2	1065.8	1102.4
160°	931.6	957.0	996.3	1055.3	1086.9
162.5°	947.2	972.5	1001.5	1049.9	1071.4
165°	976.9	989.6	1009.3	1035.6	1054.6
167.5°	993.8	1005.1	1015.8	1029.0	1040.3
170°	1009.3	1015.6	1015.8	1028.8	1035.2
172.5°	1014.5	1025.8	1020.9	1023.7	1030.0
175°	1028.7	1035.0	1028.7	1022.1	1015.8
177.5°	1028.7	1033.8	1028.7	1028.6	1023.5
180°	1028.7	1028.7	1028.7	1028.7	1028.7

(END OF REPORT)