

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: P644655

Luminaire Tested: OMN4DIP-SR4F0-100D75U935-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644655
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D75U935-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

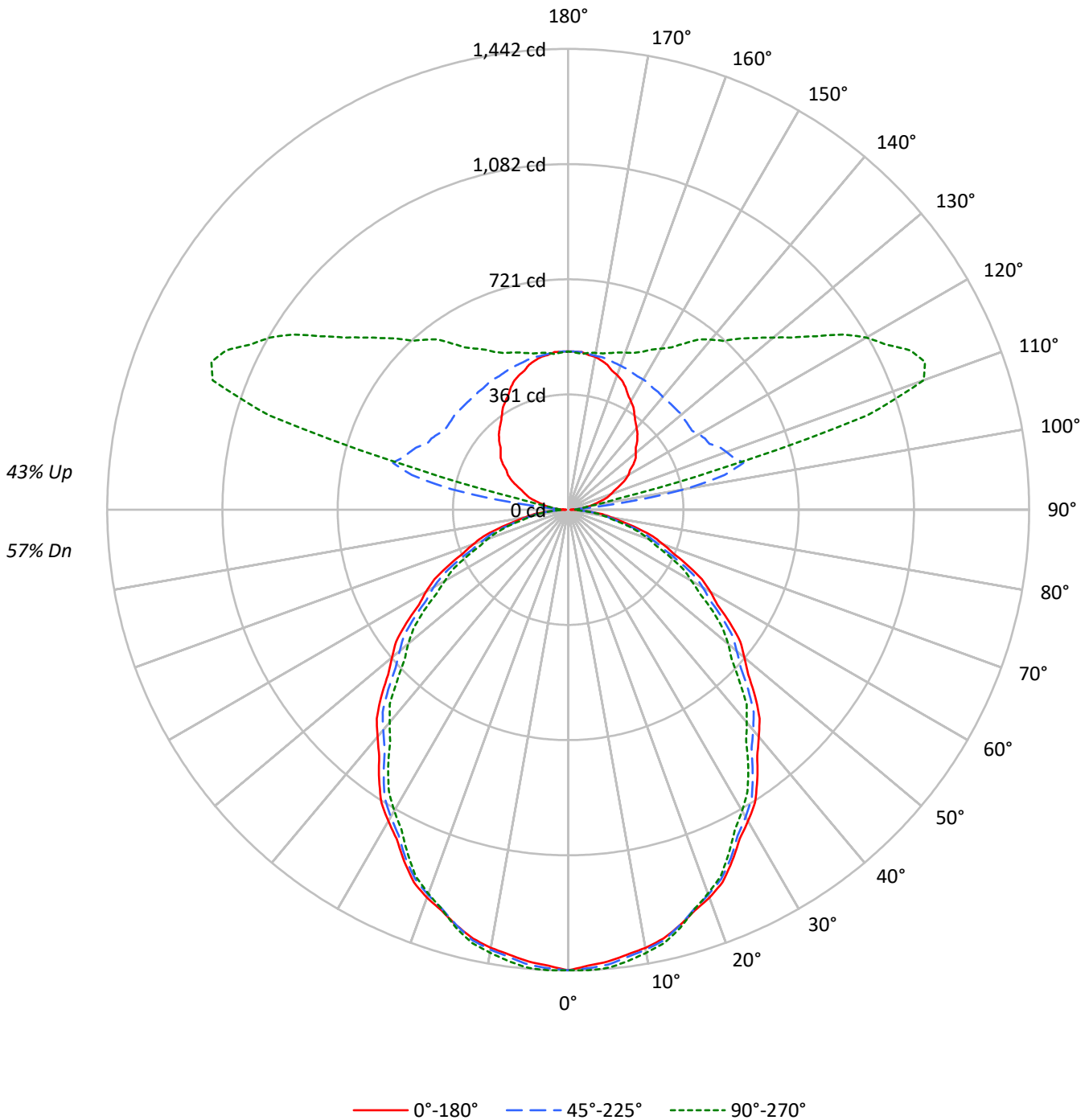
Lumens per Lamp: N/A
Luminaire Lumens: 6175.4 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.7
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																		
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	99	95	91	88	92	89	85	82	76	74	72	65	64	62	55	54	53	48
2	91	83	77	72	84	78	72	68	67	63	60	58	55	52	49	46	45	40
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	48	53	47	43	46	41	38	39	36	33	29
5	70	58	50	44	65	54	47	41	47	42	37	41	36	33	35	32	29	26
6	64	52	44	38	60	49	42	36	43	37	33	37	32	29	32	28	25	23
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	25	23	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	27	23	20	18
9	51	39	32	27	48	37	30	25	33	27	23	29	24	21	25	21	18	16
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23266	23266	23266
5°	23005	23164	23323
10°	22820	22917	23077
15°	22514	22514	22644
20°	22199	22031	21962
25°	21618	21444	21166
30°	20980	20687	20286
35°	20325	19823	19360
40°	19545	18967	18305
45°	18890	18176	17278
50°	18073	17284	16397
55°	17385	16501	15508
60°	16585	15700	14370
65°	15729	14606	13482
70°	14899	13511	12585
75°	13943	12352	11740
80°	12757	11306	10758
85°	11986	10541	9800

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18890 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.5	2.2
10°-20°	380.4	6.2
20°-30°	553.1	9.0
30°-40°	629.1	10.2
40°-50°	613.4	9.9
50°-60°	523.6	8.5
60°-70°	380.5	6.2
70°-80°	215.2	3.5
80°-90°	67.4	1.1
90°-100°	69.2	1.1
100°-110°	438.4	7.1
110°-120°	591.7	9.6
120°-130°	480.9	7.8
130°-140°	385.7	6.2
140°-150°	303.9	4.9
150°-160°	222.2	3.6
160°-170°	138.0	2.2
170°-180°	47.1	0.8
0°-30°	1069.0	17.3
0°-40°	1698.1	27.5
0°-60°	2835.1	45.9
0°-90°	3498.2	56.6
90°-120°	1099.4	17.8
90°-150°	2269.9	36.8
90°-180°	2677.0	43.3
0°-180°	6175.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1419	1440	1429	1428	1439	135
15°	1347	1364	1347	1345	1355	380
25°	1214	1225	1204	1182	1188	558
35°	1031	1035	1006	982	982	644
45°	827	824	796	768	757	637
55°	618	616	586	559	551	551
65°	412	408	382	359	353	409
75°	224	216	198	190	188	237
85°	65	57	57	55	53	69
90°	8	13	18	19	19	9
95°	41	54	31	34	38	40
105°	106	154	568	722	476	113
115°	177	212	488	1010	1180	177
125°	250	283	460	800	947	222
135°	305	339	461	659	757	235
145°	361	392	464	574	635	227
155°	424	439	473	521	545	194
165°	470	476	486	498	508	132
175°	495	498	495	492	489	47
180°	495	495	495	495	495	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441.0	1441.0	1441.0	1441.0	1441.0
2.5°	1428.4	1446.8	1436.3	1436.4	1442.5
5°	1419.4	1440.5	1429.2	1427.5	1439.0
7.5°	1404.5	1425.2	1411.9	1409.9	1424.9
10°	1391.9	1411.1	1397.8	1394.2	1407.6
12.5°	1374.7	1393.9	1380.6	1375.4	1388.8
15°	1346.9	1364.1	1346.9	1345.1	1354.7
17.5°	1315.5	1330.4	1310.4	1303.9	1311.2
20°	1292.0	1305.4	1282.2	1272.5	1278.2
22.5°	1262.2	1275.6	1250.8	1236.4	1243.7
25°	1213.5	1225.0	1203.7	1182.3	1188.1
27.5°	1161.4	1170.2	1148.8	1126.9	1128.8
30°	1125.3	1131.1	1109.6	1086.2	1088.1
32.5°	1087.7	1091.9	1068.9	1043.8	1044.2
35°	1031.2	1035.0	1005.7	982.2	982.2
37.5°	971.2	973.5	942.2	916.7	914.0
40°	927.3	931.1	899.9	874.2	868.5
42.5°	886.5	887.3	859.1	833.4	826.1
45°	827.3	823.5	796.0	768.2	756.7
47.5°	763.4	763.4	732.0	704.4	693.6
50°	719.5	719.5	688.1	660.5	652.8
52.5°	678.7	677.2	647.4	619.7	608.9
55°	617.6	615.6	586.2	558.6	550.9
57.5°	552.9	552.9	525.4	495.8	487.4
60°	513.6	513.6	486.2	456.5	445.0
62.5°	471.3	469.8	442.3	415.9	409.0
65°	411.7	407.9	382.3	358.6	352.9
67.5°	354.8	351.0	323.9	305.0	301.1
70°	315.6	311.8	286.2	270.5	266.6
72.5°	278.0	272.6	250.2	237.5	233.7
75°	223.5	215.8	198.0	190.1	188.2
77.5°	171.7	158.7	151.3	145.8	143.9
80°	137.2	125.7	121.6	117.6	115.7
82.5°	107.4	95.9	94.9	92.5	90.6
85°	64.7	57.0	56.9	54.9	52.9
87.5°	28.2	24.6	25.6	25.8	25.8
90°	7.8	12.8	18.0	19.1	19.1
92.5°	21.6	20.4	22.3	27.6	28.5
95°	40.6	54.2	30.8	34.0	38.2
97.5°	57.9	96.6	188.6	57.5	48.7
100°	72.9	118.9	371.3	110.1	73.6
102.5°	86.3	134.7	500.9	287.3	156.7
105°	106.3	154.3	567.5	721.9	476.4
107.5°	128.4	163.9	542.0	1049.8	981.5
110°	141.7	176.4	527.0	1103.0	1183.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	156.7	191.3	512.1	1071.8	1208.1
115°	177.1	211.8	487.7	1009.6	1180.1
117.5°	200.2	234.2	482.1	944.3	1119.7
120°	217.6	249.2	472.1	894.7	1077.4
122.5°	228.5	264.0	459.7	852.0	1020.1
125°	249.9	283.4	459.7	800.5	946.6
127.5°	266.0	301.6	460.3	740.6	884.9
130°	276.0	312.5	462.8	700.6	837.6
132.5°	286.9	323.4	461.2	682.6	795.3
135°	305.2	338.6	460.8	659.2	756.7
137.5°	320.7	356.6	460.8	633.4	716.8
140°	333.2	366.7	460.8	618.3	694.4
142.5°	345.6	376.7	463.3	600.7	672.0
145°	361.2	391.6	464.0	574.3	635.2
147.5°	379.9	406.7	467.7	555.3	602.2
150°	392.3	416.7	470.2	542.7	582.3
152.5°	404.8	426.7	470.2	532.6	564.8
155°	423.5	438.7	473.3	520.6	544.9
157.5°	438.4	453.0	477.0	512.9	530.6
160°	448.4	460.6	479.5	507.9	523.1
162.5°	455.9	468.0	482.0	505.3	515.6
165°	470.2	476.3	485.8	498.4	507.5
167.5°	478.3	483.8	488.9	495.2	500.7
170°	485.8	488.8	488.9	495.2	498.2
172.5°	488.2	493.7	491.4	492.7	495.7
175°	495.1	498.1	495.1	491.9	488.9
177.5°	495.1	497.5	495.1	495.0	492.6
180°	495.1	495.1	495.1	495.1	495.1

(END OF REPORT)