

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P645252

Luminaire Tested: OMN4DP-SR4F0-50D935-WBM-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

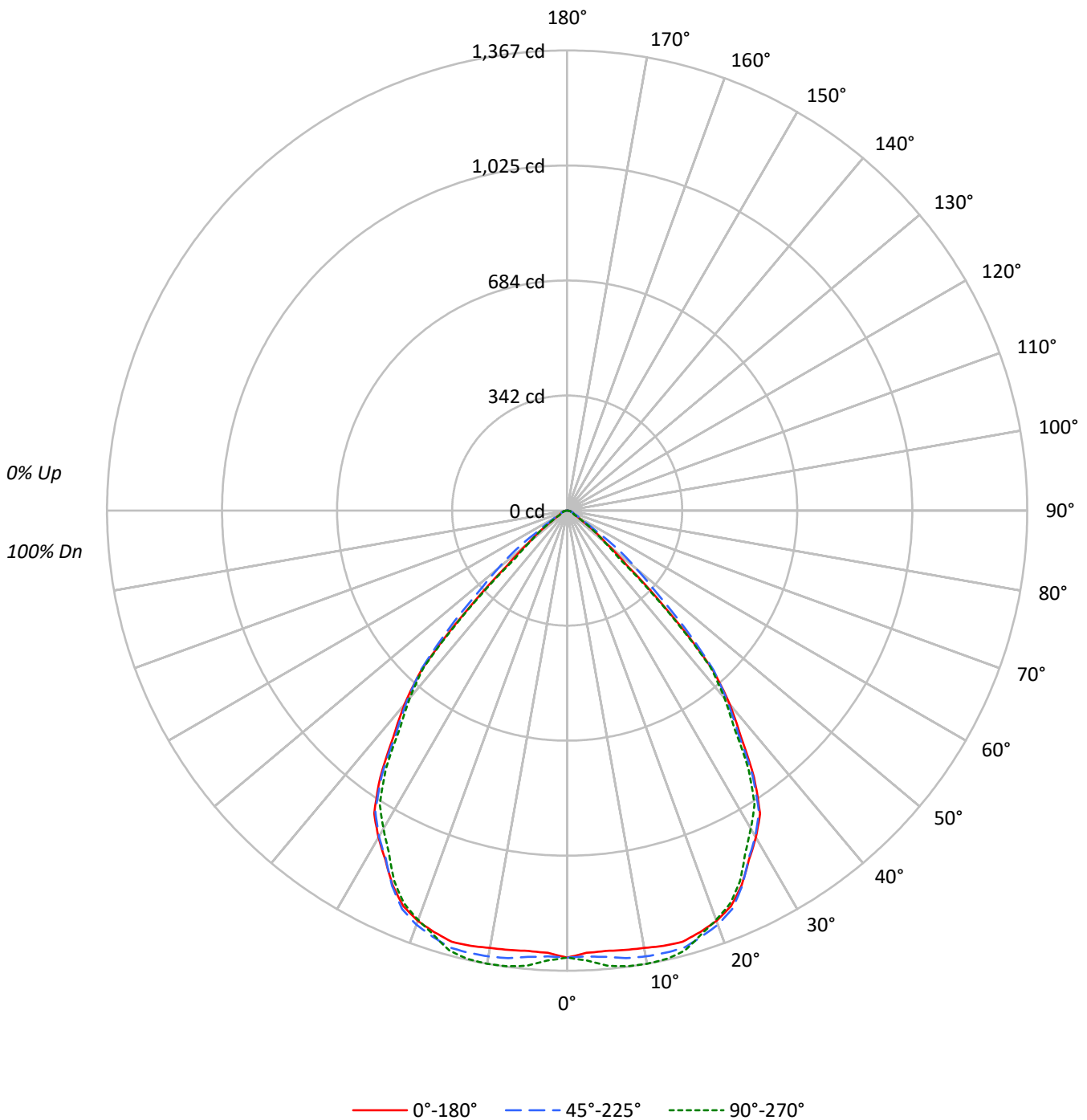
Test Method: LM-79-2019  
Report Number: P645252  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DP-SR4F0-50D935-WBM-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2135.4 lumens  
Efficiency: N/A  
Efficacy: 117.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19  
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 18.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	109	106	104	110	107	104	102	103	101	99	99	98	96	96	94	93	91				91
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83				83
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	82	79	77	75				75
4	93	84	77	72	91	83	77	72	81	75	71	78	74	70	76	73	69	68				68
5	87	77	70	65	85	76	70	65	74	69	64	73	68	64	71	67	63	62				62
6	82	71	64	59	80	70	64	59	69	63	59	67	62	58	66	61	58	56				56
7	77	66	59	54	75	65	58	54	64	58	53	62	57	53	61	56	53	51				51
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47				47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				43
10	64	53	46	42	63	52	46	42	52	46	42	51	45	41	50	45	41	40				40

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	17153	17153	17153
5°	17024	17258	17595
10°	17300	17641	17930
15°	17732	17972	18093
20°	17828	17993	17787
25°	17487	17530	17316
30°	16720	16675	16272
35°	15264	15138	14822
40°	12680	12494	12258
45°	7964	9060	7599
50°	3054	5365	2833
55°	1441	2252	1464
60°	698	1137	620
65°	642	672	581
70°	642	642	566
75°	649	649	549
80°	669	595	521
85°	741	593	445

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 9060 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.9	6.0
10°-20°	378.3	17.7
20°-30°	562.0	26.3
30°-40°	588.2	27.5
40°-50°	356.3	16.7
50°-60°	82.2	3.8
60°-70°	22.6	1.1
70°-80°	13.2	0.6
80°-90°	4.6	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1068.3	50.0
0°-40°	1656.5	77.6
0°-60°	2095.0	98.1
0°-90°	2135.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2135.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1313	1343	1331	1336	1357	126
15°	1326	1366	1344	1333	1353	373
25°	1227	1263	1230	1198	1215	562
35°	968	983	960	938	940	595
45°	436	496	496	479	416	335
55°	64	73	100	69	65	66
65°	21	22	22	20	19	21
75°	13	13	13	12	11	14
85°	5	5	4	4	3	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1328.0	1328.0	1328.0	1328.0	1328.0
2.5°	1315.2	1338.7	1325.6	1326.6	1337.6
5°	1313.0	1343.3	1331.0	1336.5	1357.0
7.5°	1316.6	1348.3	1341.0	1342.9	1365.4
10°	1319.0	1352.2	1345.0	1344.5	1367.0
12.5°	1324.6	1359.4	1345.8	1342.9	1364.6
15°	1326.0	1366.1	1344.0	1333.4	1353.0
17.5°	1313.0	1357.2	1327.4	1305.6	1321.2
20°	1297.0	1342.0	1309.0	1278.4	1294.0
22.5°	1272.2	1316.4	1281.0	1248.0	1264.4
25°	1227.0	1263.2	1230.0	1198.4	1215.0
27.5°	1169.8	1195.2	1166.8	1136.8	1146.2
30°	1121.0	1146.4	1118.0	1087.1	1091.0
32.5°	1066.6	1088.1	1060.4	1032.7	1035.8
35°	968.0	982.7	960.0	938.0	940.0
37.5°	848.0	850.0	834.6	814.6	815.0
40°	752.0	757.9	741.0	725.0	727.0
42.5°	637.6	660.7	644.2	629.8	630.2
45°	436.0	495.6	496.0	478.6	416.0
47.5°	240.8	309.8	354.2	274.7	207.4
50°	152.0	196.0	267.0	160.6	141.0
52.5°	108.8	128.6	195.0	113.6	103.4
55°	64.0	72.8	100.0	68.9	65.0
57.5°	39.0	46.6	58.4	46.0	39.2
60°	27.0	33.8	44.0	30.8	24.0
62.5°	23.8	26.0	34.4	24.6	22.4
65°	21.0	22.0	22.0	20.0	19.0
67.5°	18.6	19.6	18.6	17.6	16.6
70°	17.0	18.0	17.0	16.0	15.0
72.5°	15.4	16.4	15.4	14.4	13.4
75°	13.0	13.0	13.0	12.0	11.0
77.5°	10.6	10.6	10.4	9.6	8.6
80°	9.0	9.0	8.0	8.0	7.0
82.5°	7.4	7.4	6.4	6.4	5.4
85°	5.0	5.0	4.0	4.0	3.0
87.5°	2.4	2.4	1.6	1.6	0.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)