

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: P931397

Luminaire Tested: DFN2DS-TR3F0-070DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR3F0-070DS927-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

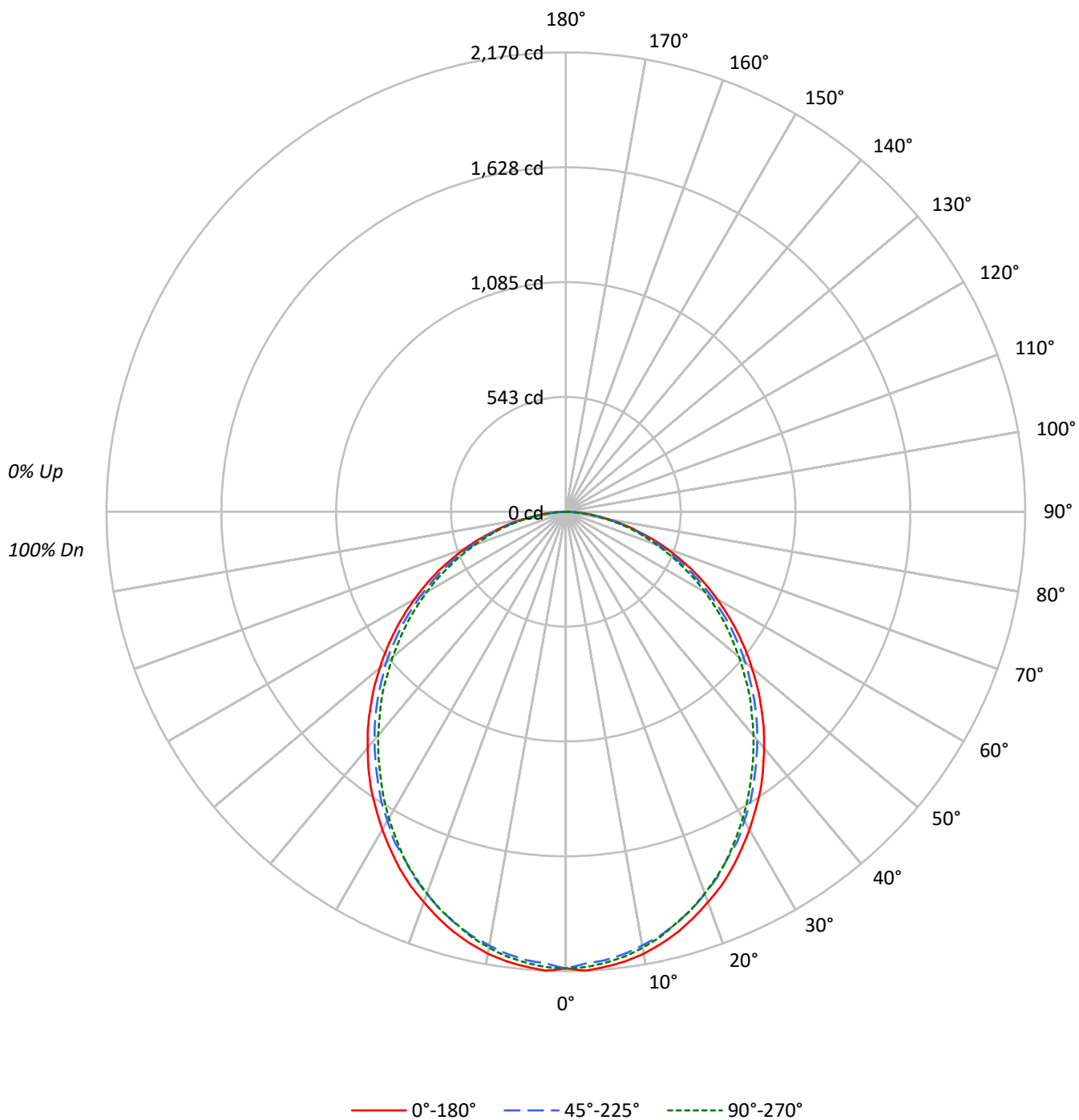
Lumens per Lamp: N/A
Luminaire Lumens: 5488.6 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 74.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9971
Total Harmonic Distortion (THDi): 0.049
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2688	2688	2688
5°	2698	2660	2675
10°	2682	2633	2646
15°	2649	2598	2596
20°	2602	2547	2545
25°	2555	2484	2484
30°	2495	2427	2406
35°	2439	2357	2322
40°	2369	2288	2244
45°	2299	2219	2164
50°	2224	2147	2071
55°	2145	2064	1987
60°	2057	1965	1892
65°	1964	1866	1780
70°	1844	1746	1663
75°	1677	1607	1568
80°	1489	1444	1369
85°	1215	1158	1038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2299 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	3.7
10°-20°	571.3	10.4
20°-30°	839.5	15.3
30°-40°	975.1	17.8
40°-50°	973.8	17.7
50°-60°	849.2	15.5
60°-70°	627.7	11.4
70°-80°	355.2	6.5
80°-90°	93.8	1.7
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°	1613.8	29.4
0°-40°	2588.9	47.2
0°-60°	4411.9	80.4
0°-90°	5488.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5488.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2157	2157	2157	2157	2157	
5°	2157	2149	2126	2143	2139	205
15°	2054	2041	2014	2022	2012	578
25°	1859	1842	1807	1811	1807	855
35°	1604	1583	1550	1537	1527	1001
45°	1305	1290	1259	1236	1228	1007
55°	988	975	950	925	915	883
65°	666	653	633	614	604	658
75°	348	344	334	322	326	372
85°	85	83	81	75	73	100
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2157.2	2157.2	2157.2	2157.2	2157.2
2.5°	2169.8	2159.4	2136.5	2157.2	2153.2
5°	2157.2	2149.1	2126.2	2142.7	2138.7
7.5°	2142.7	2130.3	2107.4	2124.2	2120.0
10°	2120.0	2105.5	2080.6	2097.1	2091.0
12.5°	2088.7	2076.5	2051.6	2061.9	2057.7
15°	2053.6	2041.2	2014.1	2022.5	2012.2
17.5°	2009.9	1997.7	1970.6	1981.0	1970.6
20°	1962.2	1949.9	1920.8	1927.0	1918.9
22.5°	1914.7	1896.0	1868.9	1868.9	1864.7
25°	1858.6	1842.0	1806.9	1810.8	1806.9
27.5°	1796.3	1781.8	1754.9	1748.7	1738.4
30°	1734.2	1717.5	1686.5	1680.3	1671.9
32.5°	1667.7	1655.4	1622.2	1609.7	1601.3
35°	1603.5	1582.8	1549.5	1537.0	1526.7
37.5°	1530.9	1512.2	1478.9	1464.4	1454.0
40°	1456.3	1439.5	1406.3	1387.8	1379.4
42.5°	1383.6	1366.9	1333.9	1313.0	1300.6
45°	1304.8	1290.3	1259.0	1236.4	1228.0
47.5°	1228.0	1213.5	1180.2	1157.3	1145.1
50°	1147.1	1136.7	1107.6	1078.6	1068.2
52.5°	1068.2	1053.8	1026.9	1004.0	989.4
55°	987.5	975.0	950.1	925.2	914.8
57.5°	906.5	896.1	869.1	844.2	835.9
60°	825.5	817.3	788.4	765.5	759.3
62.5°	746.7	732.2	711.5	690.9	682.5
65°	666.0	653.4	632.7	614.0	603.7
67.5°	583.0	572.5	553.9	539.4	531.0
70°	506.2	497.9	479.1	464.6	456.4
72.5°	427.4	419.0	408.7	394.2	388.0
75°	348.4	344.4	333.8	321.6	325.7
77.5°	278.0	269.6	265.4	259.2	253.1
80°	207.5	205.4	201.2	195.0	190.8
82.5°	141.1	141.1	139.1	130.8	130.8
85°	85.0	83.0	81.0	74.6	72.6
87.5°	37.4	33.3	29.1	22.9	20.7
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.72	16.33	15.08	16.64	16.96	14.27	15.88	14.64	16.20	16.51
	3H	16.47	17.92	16.85	18.25	18.61	15.98	17.43	16.35	17.76	18.12
	4H	17.11	18.48	17.51	18.83	19.21	16.62	17.99	17.02	18.34	18.71
	6H	17.58	18.85	17.99	19.22	19.61	17.08	18.35	17.49	18.72	19.11
	8H	17.73	18.94	18.15	19.33	19.73	17.22	18.43	17.65	18.82	19.22
	12H	17.82	18.98	18.25	19.36	19.79	17.30	18.46	17.73	18.85	19.28
4H	2H	15.28	16.65	15.68	17.00	17.37	14.93	16.29	15.32	16.64	17.02
	3H	17.25	18.40	17.66	18.80	19.20	16.85	17.99	17.26	18.39	18.79
	4H	18.03	19.07	18.46	19.48	19.92	17.61	18.64	18.04	19.06	19.49
	6H	18.63	19.53	19.08	19.97	20.43	18.19	19.10	18.65	19.54	20.00
	8H	18.82	19.66	19.28	20.11	20.57	18.38	19.22	18.84	19.67	20.13
	12H	18.95	19.71	19.43	20.18	20.65	18.50	19.26	18.98	19.73	20.20
8H	4H	18.30	19.15	18.76	19.59	20.06	17.93	18.78	18.39	19.22	19.68
	6H	19.02	19.72	19.51	20.21	20.68	18.64	19.34	19.13	19.83	20.30
	8H	19.28	19.91	19.79	20.41	20.90	18.89	19.52	19.40	20.02	20.51
	12H	19.48	20.04	19.98	20.53	21.09	19.06	19.62	19.57	20.11	20.67
12H	4H	18.33	19.09	18.81	19.57	20.03	17.96	18.72	18.45	19.20	19.67
	6H	19.06	19.70	19.57	20.20	20.69	18.69	19.33	19.20	19.83	20.32
	8H	19.38	19.94	19.88	20.43	20.99	19.00	19.56	19.51	20.05	20.61

END OF REPORT

FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE

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