

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: P931527

Luminaire Tested: DFN2DS-TR4F0-080DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931527
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-TR4F0-080DS935-FLL
Description: 4 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

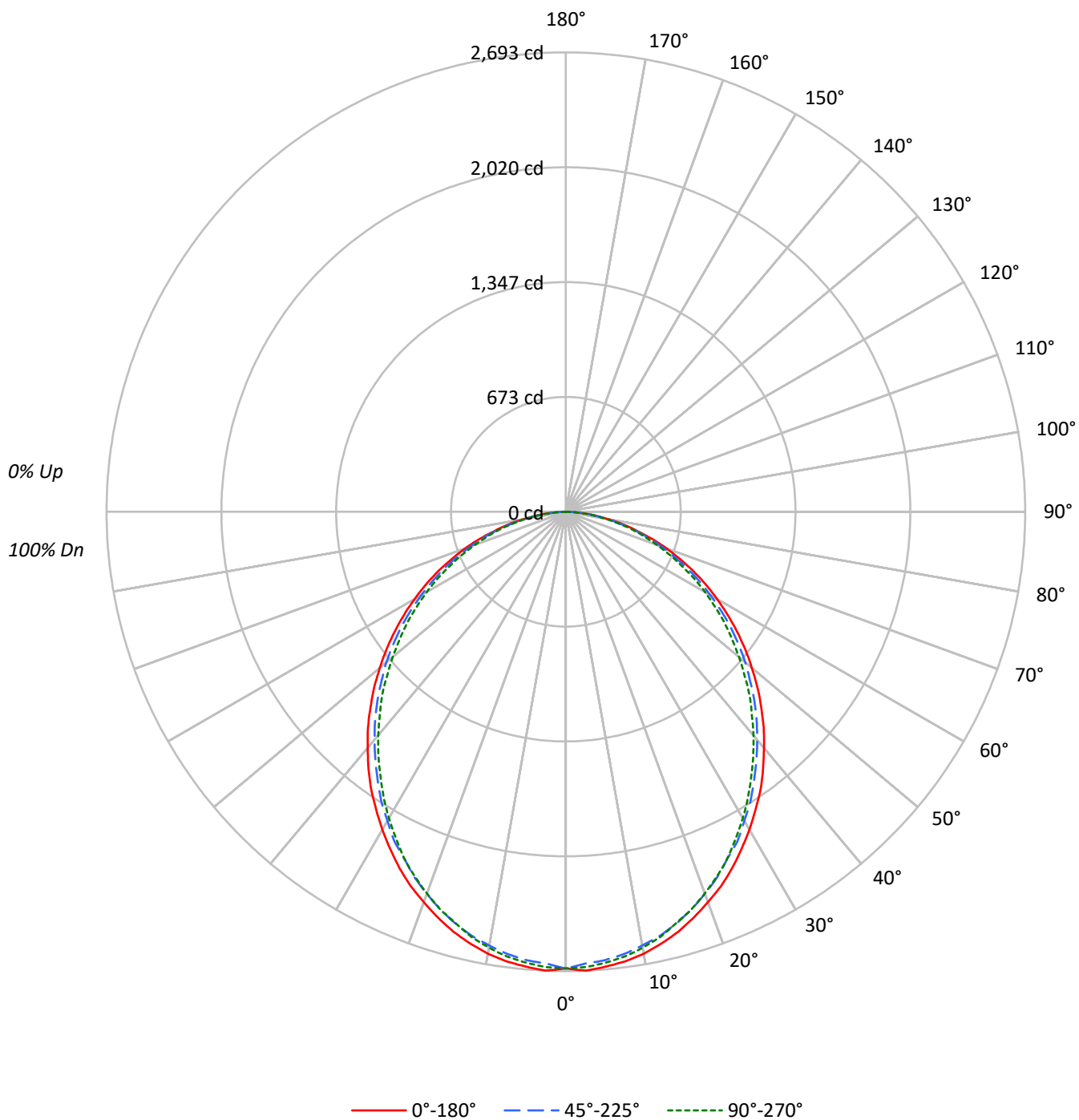
Lumens per Lamp: N/A
Luminaire Lumens: 6811.2 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.96' x L: 3.43' x H: 0')
CIE Type: Direct

Input Watts (W): 81.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9957
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°	2127	2127	2127
5°	2135	2104	2117
10°	2122	2083	2093
15°	2096	2056	2054
20°	2059	2015	2013
25°	2022	1966	1966
30°	1974	1920	1903
35°	1930	1865	1837
40°	1874	1810	1775
45°	1819	1755	1712
50°	1759	1699	1638
55°	1697	1633	1572
60°	1628	1554	1497
65°	1554	1476	1408
70°	1459	1381	1316
75°	1327	1272	1241
80°	1179	1142	1083
85°	961	916	821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 1819 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.0	3.7
10°-20°	708.9	10.4
20°-30°	1041.8	15.3
30°-40°	1210.0	17.8
40°-50°	1208.5	17.7
50°-60°	1053.8	15.5
60°-70°	779.0	11.4
70°-80°	440.7	6.5
80°-90°	116.3	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°	2002.7	29.4
0°-40°	3212.8	47.2
0°-60°	5475.1	80.4
0°-90°	6811.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6811.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2677	2677	2677	2677	2677	
5°	2677	2667	2639	2659	2654	254
15°	2548	2533	2500	2510	2497	718
25°	2306	2286	2242	2247	2242	1061
35°	1990	1964	1923	1907	1895	1243
45°	1619	1601	1562	1534	1524	1250
55°	1225	1210	1179	1148	1135	1096
65°	826	811	785	762	749	817
75°	432	427	414	399	404	462
85°	105	103	100	93	90	124
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2677.0	2677.0	2677.0	2677.0	2677.0
2.5°	2692.6	2679.8	2651.4	2677.0	2672.1
5°	2677.0	2666.9	2638.6	2659.0	2654.1
7.5°	2659.0	2643.7	2615.3	2636.1	2630.9
10°	2630.9	2612.9	2582.0	2602.4	2594.9
12.5°	2592.1	2576.8	2545.9	2558.8	2553.6
15°	2548.4	2533.1	2499.5	2509.9	2497.1
17.5°	2494.3	2479.0	2445.4	2458.3	2445.4
20°	2435.1	2419.8	2383.7	2391.4	2381.3
22.5°	2376.1	2352.9	2319.2	2319.2	2314.1
25°	2306.4	2286.0	2242.3	2247.2	2242.3
27.5°	2229.1	2211.1	2177.8	2170.1	2157.3
30°	2152.2	2131.3	2092.9	2085.2	2074.8
32.5°	2069.7	2054.4	2013.1	1997.5	1987.2
35°	1989.9	1964.2	1923.0	1907.4	1894.6
37.5°	1899.7	1876.5	1835.3	1817.3	1804.5
40°	1807.2	1786.4	1745.2	1722.2	1711.8
42.5°	1717.1	1696.3	1655.3	1629.4	1614.1
45°	1619.3	1601.2	1562.4	1534.3	1524.0
47.5°	1524.0	1505.9	1464.7	1436.3	1421.0
50°	1423.5	1410.7	1374.5	1338.5	1325.7
52.5°	1325.7	1307.6	1274.3	1246.0	1227.9
55°	1225.4	1209.8	1179.1	1148.2	1135.3
57.5°	1125.0	1112.2	1078.5	1047.7	1037.2
60°	1024.4	1014.4	978.2	949.9	942.2
62.5°	926.6	908.7	883.0	857.3	846.9
65°	826.5	810.9	785.2	762.0	749.1
67.5°	723.4	710.4	687.4	669.4	659.0
70°	628.1	617.7	594.6	576.5	566.4
72.5°	530.4	520.0	507.1	489.2	481.5
75°	432.3	427.4	414.3	399.0	404.2
77.5°	344.9	334.5	329.4	321.7	314.1
80°	257.6	254.8	249.7	242.0	236.8
82.5°	175.1	175.1	172.6	162.2	162.2
85°	105.4	102.9	100.5	92.6	90.1
87.5°	46.4	41.3	36.0	28.4	25.7
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	13.90	15.52	14.27	15.83	16.14	13.46	15.07	13.82	15.38	15.70
	3H	15.65	17.11	16.03	17.44	17.80	15.16	16.62	15.54	16.94	17.30
	4H	16.30	17.67	16.70	18.02	18.39	15.81	17.17	16.20	17.52	17.90
	6H	16.77	18.04	17.18	18.40	18.79	16.27	17.54	16.68	17.90	18.29
	8H	16.91	18.12	17.34	18.51	18.91	16.41	17.62	16.83	18.01	18.41
	12H	17.00	18.16	17.43	18.54	18.97	16.49	17.65	16.92	18.03	18.46
4H	2H	14.47	15.83	14.86	16.18	16.56	14.11	15.48	14.51	15.83	16.20
	3H	16.44	17.59	16.85	17.98	18.38	16.03	17.18	16.44	17.58	17.98
	4H	17.22	18.25	17.65	18.67	19.10	16.79	17.83	17.22	18.24	18.68
	6H	17.81	18.72	18.27	19.16	19.61	17.38	18.29	17.83	18.73	19.18
	8H	18.00	18.85	18.46	19.29	19.76	17.56	18.41	18.02	18.85	19.32
	12H	18.13	18.89	18.61	19.37	19.84	17.68	18.44	18.16	18.92	19.39
8H	4H	17.49	18.34	17.95	18.78	19.24	17.12	17.96	17.58	18.40	18.87
	6H	18.20	18.91	18.70	19.40	19.87	17.82	18.53	18.32	19.01	19.49
	8H	18.46	19.09	18.97	19.60	20.09	18.07	18.70	18.58	19.21	19.70
	12H	18.66	19.22	19.17	19.71	20.27	18.25	18.81	18.76	19.30	19.86
12H	4H	17.52	18.28	18.00	18.75	19.22	17.15	17.91	17.63	18.39	18.86
	6H	18.25	18.88	18.76	19.39	19.87	17.88	18.51	18.39	19.02	19.51
	8H	18.56	19.12	19.07	19.61	20.17	18.19	18.74	18.69	19.23	19.79