

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: P930609

Luminaire Tested: DFN2DS-PN3F0-080DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930609
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-PN3F0-080DS935-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

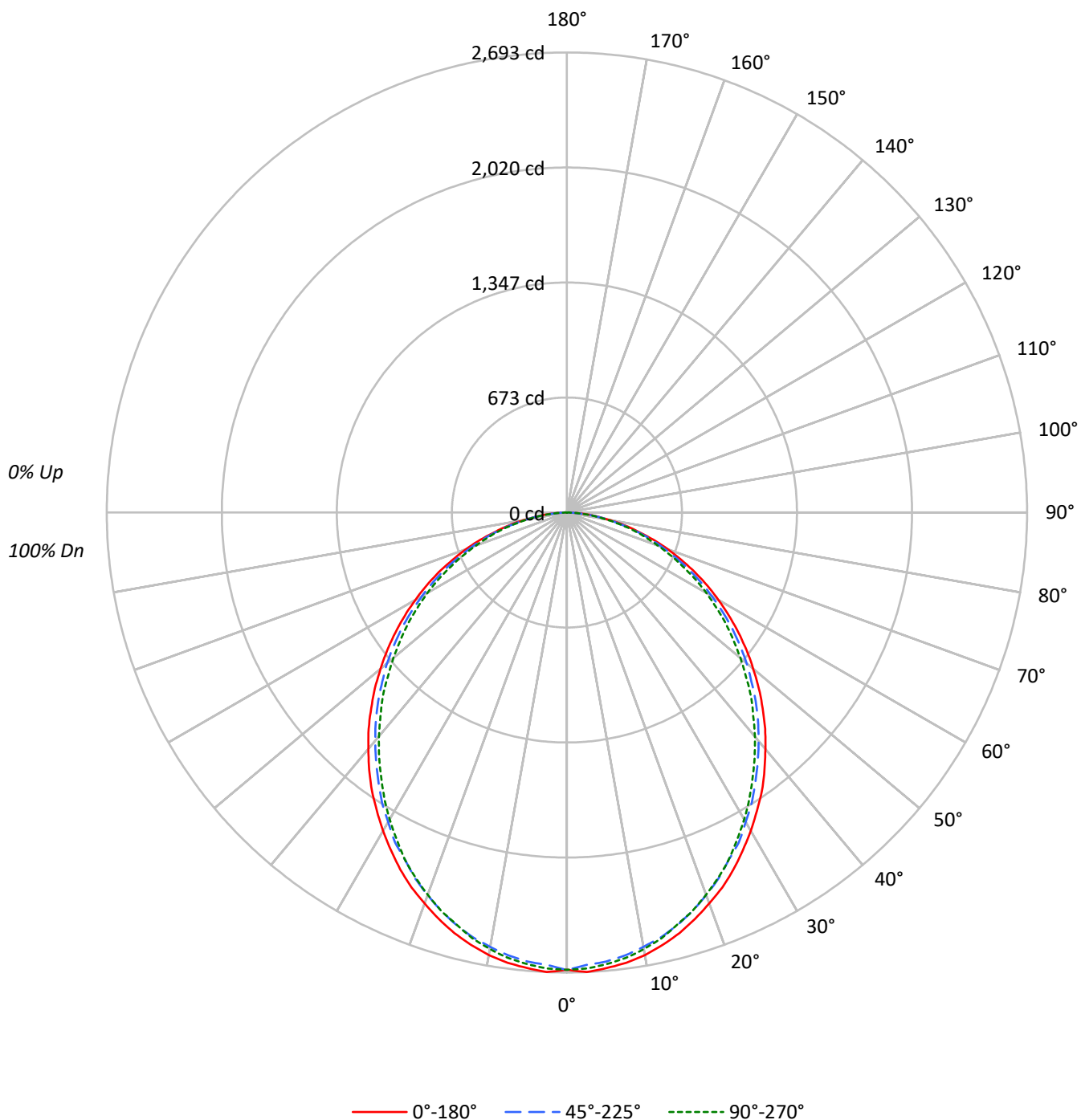
Lumens per Lamp: N/A
Luminaire Lumens: 6811.2 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

Input Watts (W): 84.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9967
Total Harmonic Distortion (THDi): 0.063
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°	3129	3129	3129
5°	3141	3096	3114
10°	3123	3065	3080
15°	3084	3025	3022
20°	3029	2965	2962
25°	2975	2892	2892
30°	2905	2825	2801
35°	2840	2744	2704
40°	2758	2663	2612
45°	2677	2583	2519
50°	2589	2500	2411
55°	2497	2403	2314
60°	2395	2287	2203
65°	2286	2172	2072
70°	2147	2032	1936
75°	1953	1871	1826
80°	1734	1681	1594
85°	1414	1348	1208

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2677 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	15.25	16.86	15.61	17.17	17.49	14.80	16.41	15.17	16.73	17.04
	3H	17.00	18.45	17.37	18.78	19.14	16.51	17.96	16.88	18.29	18.65
	4H	17.64	19.01	18.04	19.36	19.74	17.15	18.52	17.55	18.86	19.24
	6H	18.11	19.38	18.52	19.74	20.14	17.61	18.88	18.02	19.24	19.63
	8H	18.25	19.47	18.68	19.85	20.25	17.75	18.96	18.18	19.35	19.75
	12H	18.35	19.51	18.77	19.89	20.32	17.83	18.99	18.26	19.37	19.80
4H	2H	15.81	17.18	16.21	17.52	17.90	15.45	16.82	15.85	17.17	17.55
	3H	17.78	18.93	18.19	19.33	19.73	17.38	18.52	17.78	18.92	19.32
	4H	18.56	19.59	18.99	20.01	20.44	18.13	19.17	18.57	19.58	20.02
	6H	19.15	20.06	19.61	20.50	20.96	18.72	19.63	19.18	20.07	20.52
	8H	19.34	20.19	19.80	20.63	21.10	18.91	19.75	19.37	20.20	20.66
	12H	19.48	20.24	19.96	20.71	21.18	19.02	19.78	19.50	20.26	20.73
8H	4H	18.83	19.68	19.29	20.12	20.59	18.46	19.30	18.92	19.75	20.21
	6H	19.55	20.25	20.04	20.74	21.21	19.16	19.87	19.66	20.36	20.83
	8H	19.81	20.44	20.32	20.94	21.43	19.41	20.04	19.92	20.55	21.04
	12H	20.01	20.56	20.51	21.05	21.61	19.59	20.15	20.10	20.64	21.20
12H	4H	18.86	19.62	19.34	20.09	20.56	18.49	19.25	18.97	19.73	20.20
	6H	19.59	20.22	20.10	20.73	21.22	19.22	19.85	19.73	20.36	20.85
	8H	19.91	20.46	20.41	20.95	21.51	19.53	20.09	20.03	20.58	21.14