

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: P930455

Luminaire Tested: DFN2DS-PN2F0-040DS835-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930455
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-PN2F0-040DS835-FLL
Description: 2 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

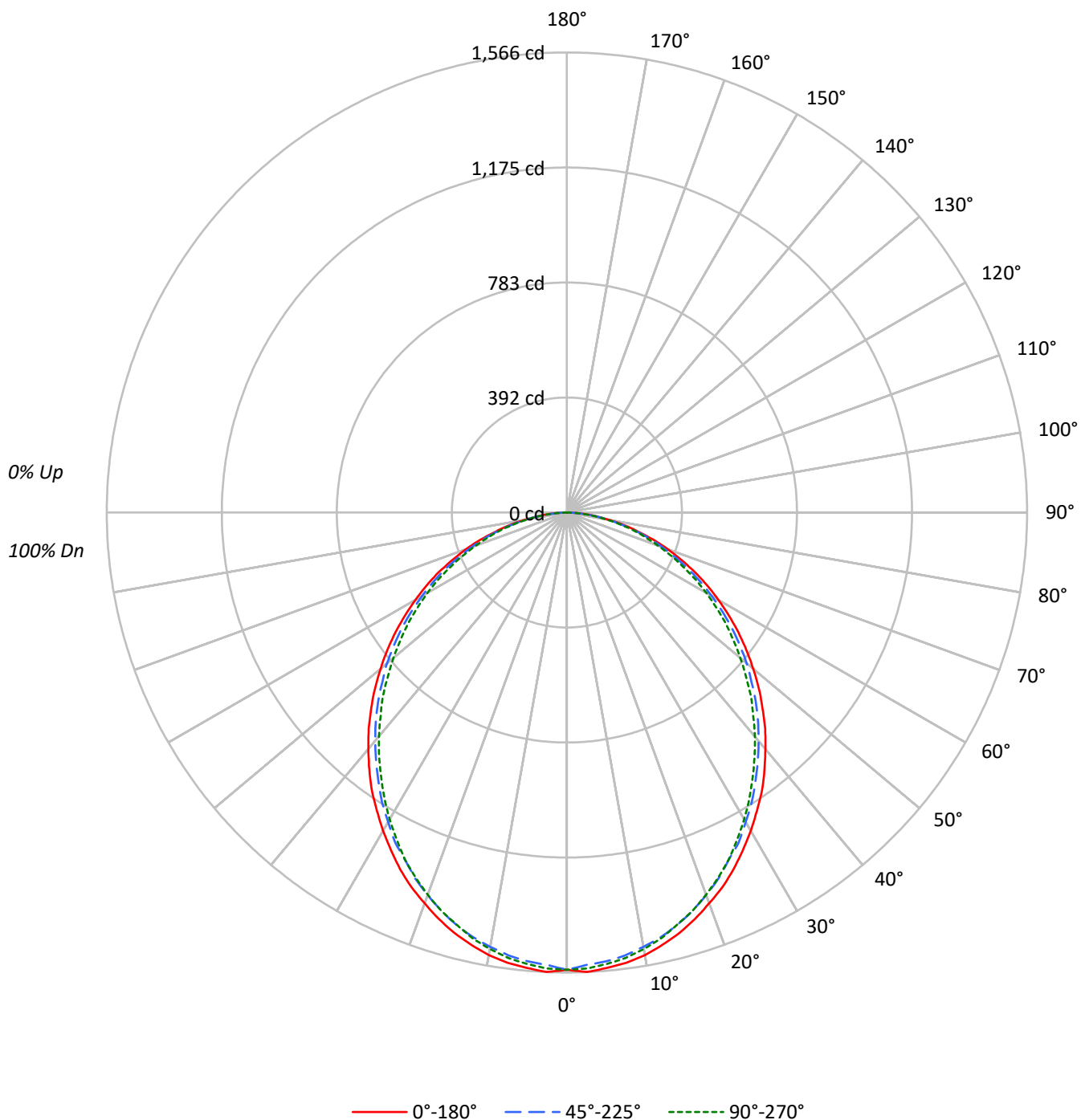
Lumens per Lamp: N/A
Luminaire Lumens: 3960.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9613
Total Harmonic Distortion (THDi): 0.083
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930455

CATALOG NUMBER: DFN2DS-PN2F0-040DS835-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930455

CATALOG NUMBER: DFN2DS-PN2F0-040DS835-FLL

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°	3371	3371	3371
5°	3384	3335	3355
10°	3364	3302	3318
15°	3322	3258	3255
20°	3263	3194	3191
25°	3204	3115	3115
30°	3129	3043	3017
35°	3059	2956	2912
40°	2971	2869	2814
45°	2884	2782	2714
50°	2789	2693	2597
55°	2690	2589	2493
60°	2580	2464	2373
65°	2463	2340	2232
70°	2313	2189	2085
75°	2104	2016	1967
80°	1867	1810	1717
85°	1523	1451	1302

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2884 cd/sqm

TEST NUMBER: P930455

CATALOG NUMBER: DFN2DS-PN2F0-040DS835-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.5	3.7
10°-20°	412.2	10.4
20°-30°	605.7	15.3
30°-40°	703.5	17.8
40°-50°	702.6	17.7
50°-60°	612.7	15.5
60°-70°	452.9	11.4
70°-80°	256.2	6.5
80°-90°	67.6	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°	1164.4	29.4
0°-40°	1867.9	47.2
0°-60°	3183.2	80.4
0°-90°	3960.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3960.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1556	1556	1556	1556	1556	
5°	1556	1550	1534	1546	1543	148
15°	1482	1473	1453	1459	1452	417
25°	1341	1329	1304	1306	1304	617
35°	1157	1142	1118	1109	1102	722
45°	941	931	908	892	886	727
55°	712	703	686	668	660	637
65°	480	471	456	443	436	475
75°	251	248	241	232	235	268
85°	61	60	58	54	52	72
90°	0	0	0	0	0	

TEST NUMBER: P930455

CATALOG NUMBER: DFN2DS-PN2F0-040DS835-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1556.4	1556.4	1556.4	1556.4	1556.4
2.5°	1565.5	1558.0	1541.5	1556.4	1553.6
5°	1556.4	1550.5	1534.0	1545.9	1543.1
7.5°	1545.9	1537.0	1520.5	1532.6	1529.6
10°	1529.6	1519.1	1501.2	1513.1	1508.6
12.5°	1507.0	1498.1	1480.2	1487.7	1484.6
15°	1481.6	1472.7	1453.2	1459.2	1451.8
17.5°	1450.2	1441.3	1421.8	1429.2	1421.8
20°	1415.7	1406.8	1385.9	1390.3	1384.5
22.5°	1381.4	1367.9	1348.4	1348.4	1345.4
25°	1340.9	1329.0	1303.6	1306.5	1303.6
27.5°	1296.0	1285.5	1266.2	1261.7	1254.3
30°	1251.2	1239.2	1216.8	1212.3	1206.3
32.5°	1203.3	1194.4	1170.4	1161.4	1155.3
35°	1156.9	1142.0	1118.0	1109.0	1101.5
37.5°	1104.5	1091.0	1067.0	1056.6	1049.1
40°	1050.7	1038.6	1014.6	1001.3	995.3
42.5°	998.3	986.2	962.4	947.3	938.4
45°	941.4	931.0	908.4	892.1	886.0
47.5°	886.0	875.5	851.6	835.1	826.2
50°	827.6	820.1	799.2	778.2	770.7
52.5°	770.7	760.3	740.9	724.4	713.9
55°	712.5	703.4	685.5	667.5	660.1
57.5°	654.0	646.6	627.0	609.1	603.1
60°	595.6	589.7	568.8	552.3	547.8
62.5°	538.8	528.3	513.4	498.4	492.4
65°	480.5	471.4	456.5	443.0	435.6
67.5°	420.6	413.0	399.7	389.2	383.2
70°	365.2	359.2	345.7	335.2	329.3
72.5°	308.4	302.3	294.9	284.4	279.9
75°	251.4	248.5	240.9	232.0	235.0
77.5°	200.5	194.5	191.5	187.0	182.6
80°	149.7	148.1	145.1	140.7	137.7
82.5°	101.8	101.8	100.4	94.3	94.3
85°	61.3	59.9	58.4	53.8	52.4
87.5°	27.0	24.0	21.0	16.5	14.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930455

CATALOG NUMBER: DFN2DS-PN2F0-040DS835-FLL

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	15.50	17.12	15.87	17.43	17.74	15.06	16.67	15.43	16.99	17.30
	3H	17.25	18.71	17.63	19.04	19.40	16.76	18.22	17.14	18.54	18.91
	4H	17.90	19.27	18.30	19.62	19.99	17.41	18.78	17.80	19.12	19.50
	6H	18.37	19.64	18.78	20.00	20.39	17.87	19.14	18.28	19.50	19.89
	8H	18.51	19.72	18.94	20.11	20.51	18.01	19.22	18.44	19.61	20.01
	12H	18.60	19.76	19.03	20.15	20.57	18.09	19.25	18.52	19.63	20.06
4H	2H	16.07	17.43	16.46	17.78	18.16	15.71	17.08	16.11	17.43	17.81
	3H	18.04	19.19	18.45	19.58	19.98	17.63	18.78	18.04	19.18	19.58
	4H	18.82	19.85	19.25	20.27	20.70	18.39	19.43	18.82	19.84	20.28
	6H	19.41	20.32	19.87	20.76	21.21	18.98	19.89	19.44	20.33	20.78
	8H	19.60	20.45	20.06	20.89	21.36	19.16	20.01	19.63	20.45	20.92
	12H	19.73	20.49	20.21	20.97	21.44	19.28	20.04	19.76	20.52	20.99
8H	4H	19.09	19.94	19.55	20.38	20.84	18.72	19.56	19.18	20.00	20.47
	6H	19.80	20.51	20.30	21.00	21.47	19.42	20.13	19.92	20.61	21.09
	8H	20.06	20.69	20.57	21.20	21.69	19.67	20.30	20.18	20.81	21.30
	12H	20.26	20.82	20.77	21.31	21.87	19.85	20.41	20.36	20.90	21.46
12H	4H	19.12	19.88	19.60	20.35	20.82	18.75	19.51	19.23	19.99	20.46
	6H	19.85	20.48	20.36	20.99	21.47	19.48	20.11	19.99	20.62	21.11
	8H	20.16	20.72	20.67	21.21	21.77	19.79	20.34	20.29	20.83	21.40