

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242688

Luminaire Tested: **S124DR-S575D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242688
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S575D935-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1882.2 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.88' x H: 0.08')
CIE Type: Direct

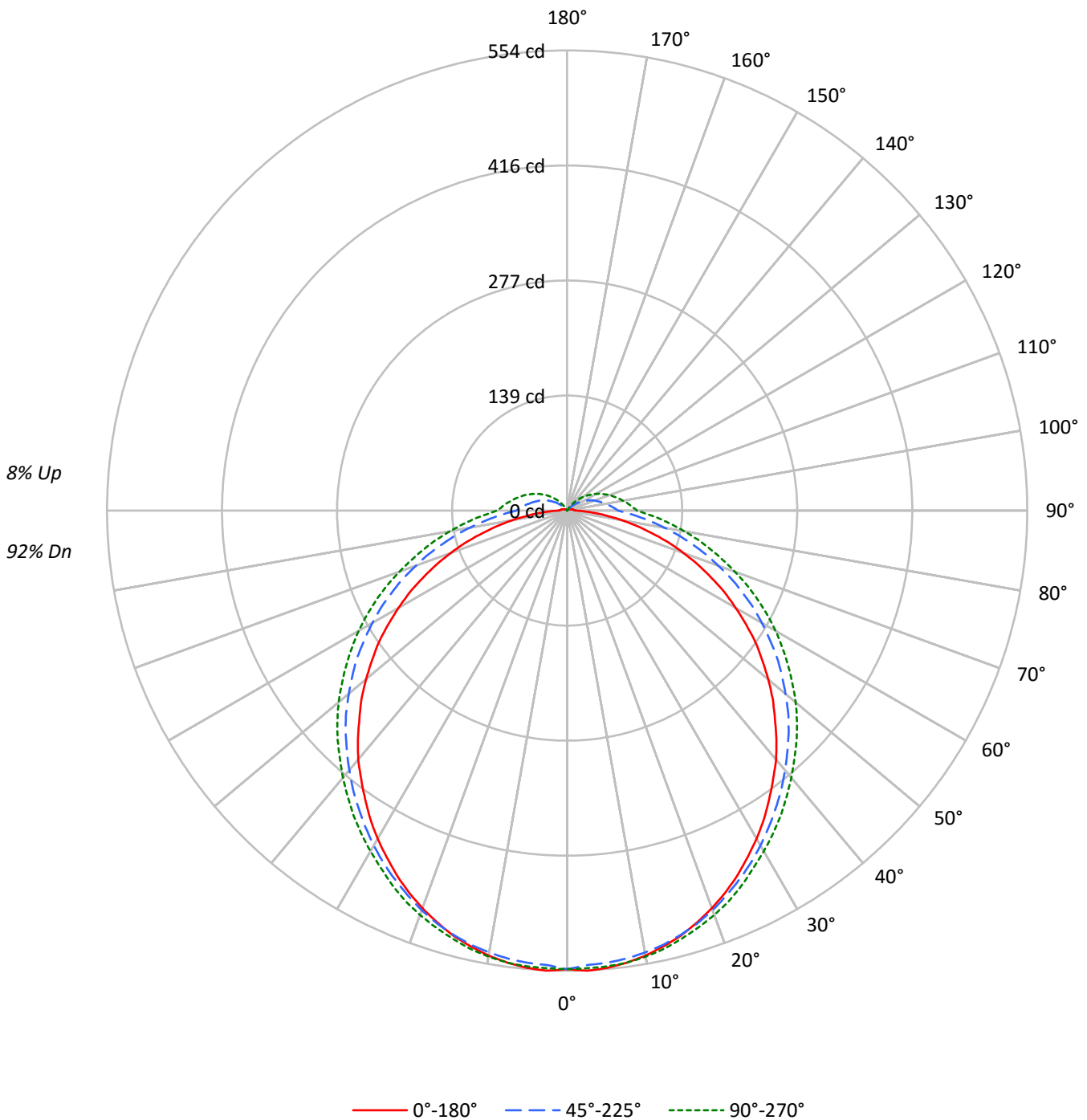
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4908	4908	4908
5°	4922	4791	4803
10°	4892	4708	4701
15°	4848	4613	4582
20°	4781	4508	4467
25°	4707	4391	4342
30°	4625	4275	4213
35°	4534	4157	4098
40°	4460	4043	3981
45°	4351	3938	3877
50°	4259	3818	3769
55°	4165	3703	3643
60°	4016	3558	3525
65°	3852	3403	3384
70°	3656	3224	3217
75°	3380	3028	3064
80°	3075	2833	2910
85°	2685	2653	2804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	2.8
10°-20°	149.9	8.0
20°-30°	226.6	12.0
30°-40°	274.2	14.6
40°-50°	289.8	15.4
50°-60°	272.8	14.5
60°-70°	226.3	12.0
70°-80°	158.8	8.4
80°-90°	89.5	4.8
90°-100°	53.3	2.8
100°-110°	39.5	2.1
110°-120°	26.5	1.4
120°-130°	14.9	0.8
130°-140°	6.5	0.3
140°-150°	1.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	428.8	22.8
0°-40°	703.0	37.3
0°-60°	1265.6	67.2
0°-90°	1740.3	92.5
90°-120°	119.3	6.3
90°-150°	141.9	7.5
90°-180°	142.0	7.5
0°-180°	1882.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	553	551	546	552	551	52
15°	530	530	529	534	534	149
25°	485	488	490	497	498	223
35°	424	432	438	446	448	266
45°	354	365	377	388	391	273
55°	277	290	308	321	325	247
65°	192	211	232	248	253	190
75°	106	129	155	172	178	113
85°	33	59	87	105	111	34
90°	10	35	61	79	84	7
95°	8	28	54	70	76	6
105°	6	18	41	56	61	6
115°	4	9	29	43	47	4
125°	2	2	17	29	33	2
135°	1	1	6	16	19	1
145°	1	0	0	4	6	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	552.1	552.1	552.1	552.1	552.1
2.5°	554.5	552.7	547.7	552.1	551.5
5°	552.7	550.8	546.5	551.5	550.8
7.5°	549.0	547.7	544.0	549.6	549.0
10°	544.0	543.4	540.3	545.9	545.3
12.5°	537.2	537.2	535.4	540.3	540.3
15°	529.8	530.4	528.6	534.1	533.5
17.5°	519.9	521.8	521.2	526.7	526.1
20°	509.4	511.3	511.9	518.1	518.1
22.5°	497.7	500.1	501.4	507.6	508.8
25°	484.7	488.4	490.2	497.0	497.7
27.5°	470.5	476.0	478.5	484.7	485.3
30°	456.2	461.2	465.5	472.3	473.6
32.5°	440.8	447.0	451.9	460.0	461.2
35°	424.1	431.5	437.7	446.4	448.2
37.5°	407.4	416.1	423.5	432.1	434.0
40°	391.3	399.4	408.0	417.3	419.8
42.5°	372.8	382.1	392.6	403.1	404.9
45°	353.6	365.4	377.1	387.6	390.7
47.5°	335.7	347.4	361.0	371.6	375.3
50°	315.9	329.5	343.1	355.5	359.2
52.5°	296.1	309.7	325.8	338.2	341.9
55°	277.0	289.9	308.5	320.9	324.6
57.5°	255.3	271.4	289.3	304.2	307.3
60°	234.3	250.4	270.8	285.0	289.9
62.5°	213.9	231.8	252.2	266.5	271.4
65°	191.6	211.4	232.5	247.9	252.9
67.5°	170.6	191.6	213.9	229.4	234.3
70°	149.0	170.0	193.5	210.2	214.5
72.5°	128.0	149.6	175.0	191.0	196.0
75°	106.3	129.2	155.2	172.5	178.0
77.5°	85.9	110.0	137.2	154.6	160.7
80°	67.4	92.1	119.3	137.9	142.8
82.5°	48.8	74.8	102.0	121.2	126.7
85°	32.8	58.7	86.6	105.1	111.3
87.5°	20.4	45.7	72.9	90.9	96.4
90°	9.9	34.6	61.2	79.1	84.1
92.5°	9.3	30.9	57.5	74.8	79.8
95°	8.0	28.4	53.8	70.5	76.0
97.5°	7.4	25.3	50.7	66.8	72.3
100°	6.8	22.9	47.0	63.7	68.0
102.5°	6.8	20.4	43.9	60.0	64.9
105°	5.6	17.9	40.8	56.3	61.2
107.5°	5.6	16.1	37.7	53.2	57.5
110°	4.9	13.6	35.2	49.5	54.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.3	11.7	32.1	45.7	50.7
115°	3.7	9.3	29.1	42.7	47.0
117.5°	3.7	7.4	26.0	38.9	43.9
120°	3.1	4.9	22.9	35.2	40.2
122.5°	3.1	3.1	19.8	32.1	36.5
125°	2.5	1.9	17.3	29.1	32.8
127.5°	2.5	1.9	14.2	25.3	29.7
130°	1.9	1.2	11.1	22.3	26.0
132.5°	1.9	1.2	8.7	19.2	22.9
135°	1.2	1.2	5.6	15.5	19.2
137.5°	1.2	0.6	3.1	12.4	15.5
140°	1.2	0.6	1.2	9.3	12.4
142.5°	0.6	0.6	0.0	6.8	9.3
145°	0.6	0.0	0.0	3.7	6.2
147.5°	0.6	0.0	0.0	0.6	3.1
150°	0.6	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)