

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: P243587

Luminaire Tested: **S124RDR-H575D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243587  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H575D940-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1899.5 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

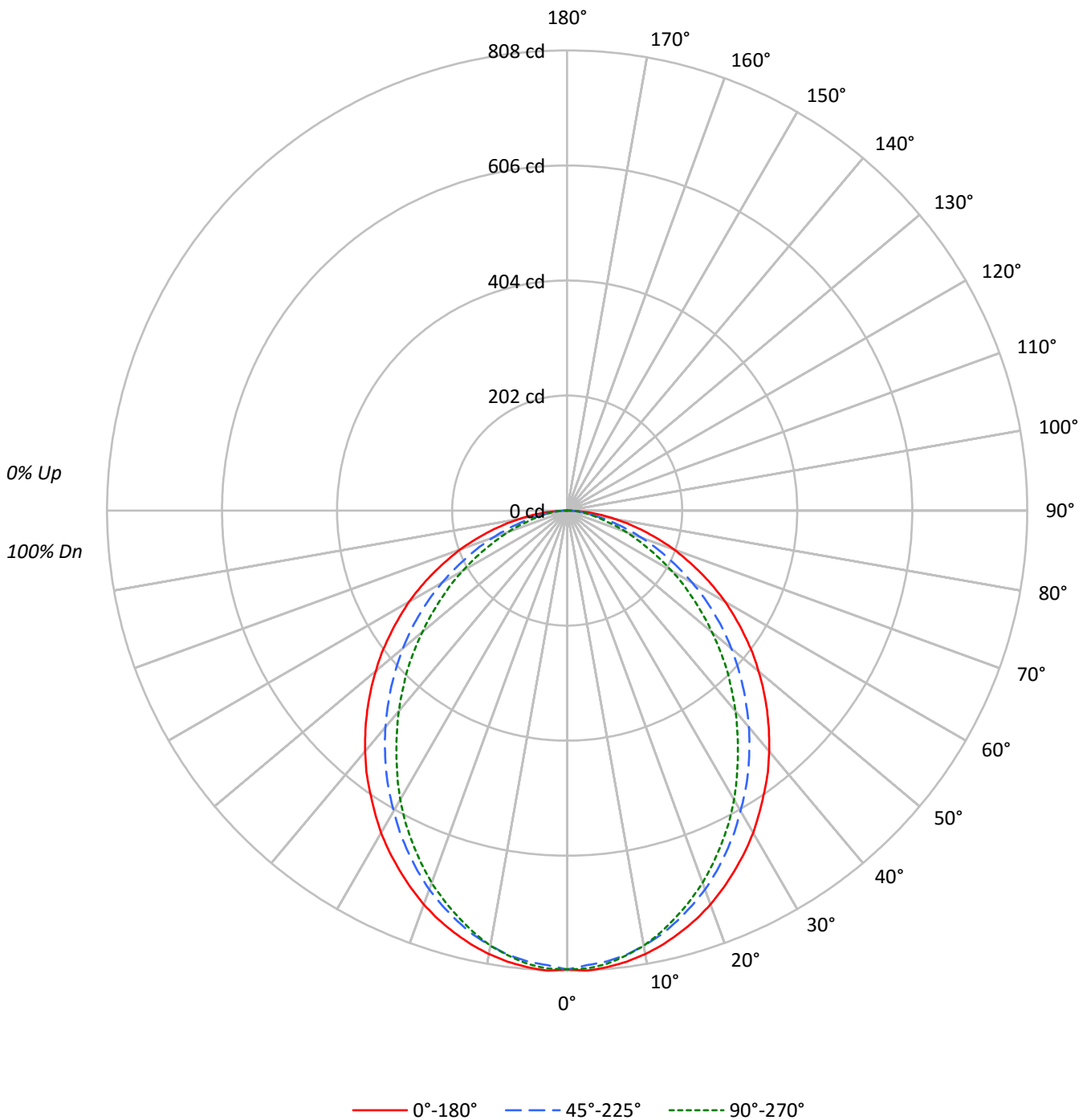
Input Watts (W): 17.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7160	7160	7160
5°	7182	7092	7129
10°	7137	7002	7002
15°	7057	6866	6800
20°	6962	6697	6579
25°	6833	6484	6308
30°	6705	6249	6017
35°	6548	6019	5671
40°	6402	5760	5339
45°	6240	5486	4992
50°	6067	5204	4587
55°	5878	4883	4183
60°	5696	4512	3762
65°	5452	4076	3287
70°	5190	3600	2859
75°	4798	3002	2329
80°	4382	2344	2129
85°	3876	2244	2121



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.8	4.0
10°-20°	211.6	11.1
20°-30°	306.8	16.2
30°-40°	349.7	18.4
40°-50°	340.2	17.9
50°-60°	285.8	15.0
60°-70°	199.1	10.5
70°-80°	102.8	5.4
80°-90°	27.8	1.5
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°	594.1	31.3
0°-40°	943.8	49.7
0°-60°	1569.8	82.6
0°-90°	1899.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1899.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	806	806	806	806	806	
5°	805	803	795	801	799	76
15°	767	761	746	745	739	216
25°	697	684	661	652	643	321
35°	603	585	555	534	523	378
45°	496	473	436	408	397	383
55°	379	355	315	283	270	340
65°	259	234	194	166	156	257
75°	140	118	87	73	68	149
85°	38	24	22	21	21	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	805.5	805.5	805.5	805.5	805.5
2.5°	808.5	806.1	799.0	805.5	804.9
5°	804.9	802.6	794.8	800.8	799.0
7.5°	799.0	796.0	787.1	791.3	788.3
10°	790.7	787.7	775.8	778.8	775.8
12.5°	780.0	775.8	762.7	763.3	758.6
15°	766.9	760.9	746.1	744.9	738.9
17.5°	752.6	744.9	727.7	724.7	718.1
20°	736.0	726.5	708.0	701.5	695.5
22.5°	717.0	705.7	685.4	677.7	670.0
25°	696.7	683.7	661.1	651.6	643.2
27.5°	675.9	660.5	636.1	624.2	615.9
30°	653.3	635.5	608.8	595.1	586.2
32.5°	628.4	610.5	582.6	566.0	554.7
35°	603.4	585.0	554.7	533.8	522.6
37.5°	579.0	558.2	525.5	504.1	491.0
40°	551.7	529.7	496.4	472.0	460.1
42.5°	524.3	501.7	466.1	440.5	427.4
45°	496.4	472.6	436.4	408.4	397.1
47.5°	467.9	444.1	406.6	377.5	364.4
50°	438.7	415.0	376.3	344.2	331.7
52.5°	410.2	385.2	346.6	313.9	300.8
55°	379.3	354.9	315.1	283.0	269.9
57.5°	349.6	324.0	285.4	252.7	242.0
60°	320.4	294.9	253.8	222.3	211.6
62.5°	289.5	264.0	223.5	193.2	183.7
65°	259.2	234.2	193.8	165.9	156.3
67.5°	228.3	205.7	166.5	139.7	132.0
70°	199.7	174.2	138.5	115.3	110.0
72.5°	169.4	146.8	112.4	93.3	89.2
75°	139.7	118.3	87.4	73.1	67.8
77.5°	112.4	91.6	66.0	54.1	54.1
80°	85.6	67.2	45.8	42.8	41.6
82.5°	60.6	43.4	33.9	31.5	30.9
85°	38.0	24.4	22.0	20.8	20.8
87.5°	18.4	11.3	11.3	10.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)