

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: P231712

Luminaire Tested: **S121-RDR-LO-30-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33908)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-RDR-LO-30-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1015.3 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 0.93 / 1.1
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

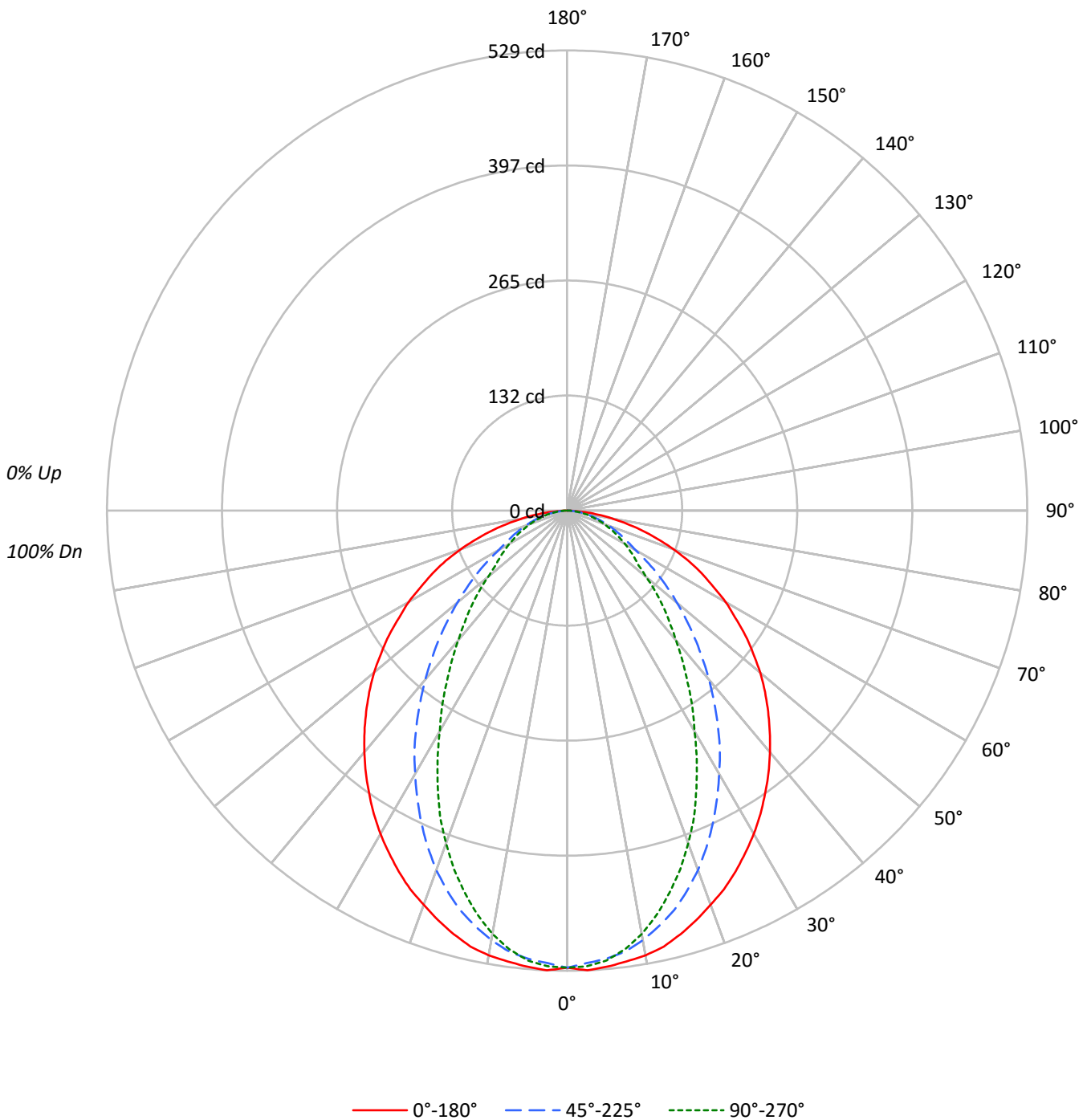
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86					86			
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74					74			
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64					64			
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40					40			
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	35	33					33			
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14689	14689	14689
5°	14773	14512	14568
10°	14737	14237	14030
15°	14590	13760	13158
20°	14346	13079	12103
25°	14122	12228	10846
30°	13856	11286	9456
35°	13546	10314	8239
40°	13233	9263	7098
45°	12917	8208	6172
50°	12600	7172	5158
55°	12195	6161	4616
60°	11781	5060	4277
65°	11286	4578	3989
70°	10626	4210	3703
75°	9722	3824	3370
80°	8453	3349	3091
85°	6672	2823	2662



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	4.8
10°-20°	134.3	13.2
20°-30°	184.3	18.2
30°-40°	194.1	19.1
40°-50°	172.9	17.0
50°-60°	132.9	13.1
60°-70°	89.0	8.8
70°-80°	46.5	4.6
80°-90°	12.2	1.2
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°	367.8	36.2
0°-40°	561.9	55.3
0°-60°	867.6	85.5
0°-90°	1015.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1015.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	525	525	525	525	525	
5°	526	523	517	521	519	50
15°	504	497	475	464	455	142
25°	458	438	396	366	352	211
35°	397	364	302	257	241	248
45°	327	280	208	167	156	252
55°	250	195	126	98	95	223
65°	171	112	69	62	60	169
75°	90	46	35	32	31	95
85°	21	10	9	8	8	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	525.4	525.4	525.4	525.4	525.4
2.5°	529.0	525.9	520.7	525.4	524.3
5°	526.4	523.3	517.1	520.7	519.1
7.5°	522.8	518.6	511.3	512.4	508.7
10°	519.1	513.4	501.5	498.9	494.2
12.5°	513.4	507.2	489.0	481.7	476.0
15°	504.1	497.3	475.4	463.5	454.6
17.5°	493.7	483.3	458.3	441.6	432.3
20°	482.2	469.7	439.6	418.2	406.8
22.5°	471.3	454.6	418.7	393.3	381.3
25°	457.8	438.5	396.4	366.2	351.6
27.5°	443.7	420.3	373.0	339.2	322.5
30°	429.2	402.1	349.6	310.5	292.9
32.5°	413.5	382.9	326.7	283.5	267.9
35°	396.9	364.1	302.2	257.0	241.4
37.5°	380.3	342.8	277.3	232.0	218.0
40°	362.6	322.5	253.8	208.6	194.5
42.5°	344.9	301.2	229.9	187.3	174.3
45°	326.7	280.4	207.6	167.0	156.1
47.5°	308.5	259.1	185.7	147.7	137.3
50°	289.7	237.7	164.9	129.5	118.6
52.5°	269.5	216.4	145.1	111.3	103.5
55°	250.2	195.1	126.4	97.8	94.7
57.5°	228.9	173.7	108.2	88.4	85.3
60°	210.7	152.4	90.5	79.6	76.5
62.5°	189.3	131.6	79.1	70.7	68.1
65°	170.6	111.8	69.2	61.9	60.3
67.5°	150.9	92.6	59.8	54.1	52.0
70°	130.0	74.4	51.5	46.3	45.3
72.5°	109.8	57.7	42.7	39.0	38.5
75°	90.0	45.8	35.4	32.3	31.2
77.5°	70.7	34.9	28.1	26.0	25.5
80°	52.5	25.5	20.8	19.8	19.2
82.5°	35.9	17.2	14.6	13.5	13.5
85°	20.8	9.9	8.8	8.3	8.3
87.5°	7.8	4.2	3.6	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)