

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: P231658

Luminaire Tested: **S121-DR-1-40-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231658
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33906)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-DR-1-40-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2658.7 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

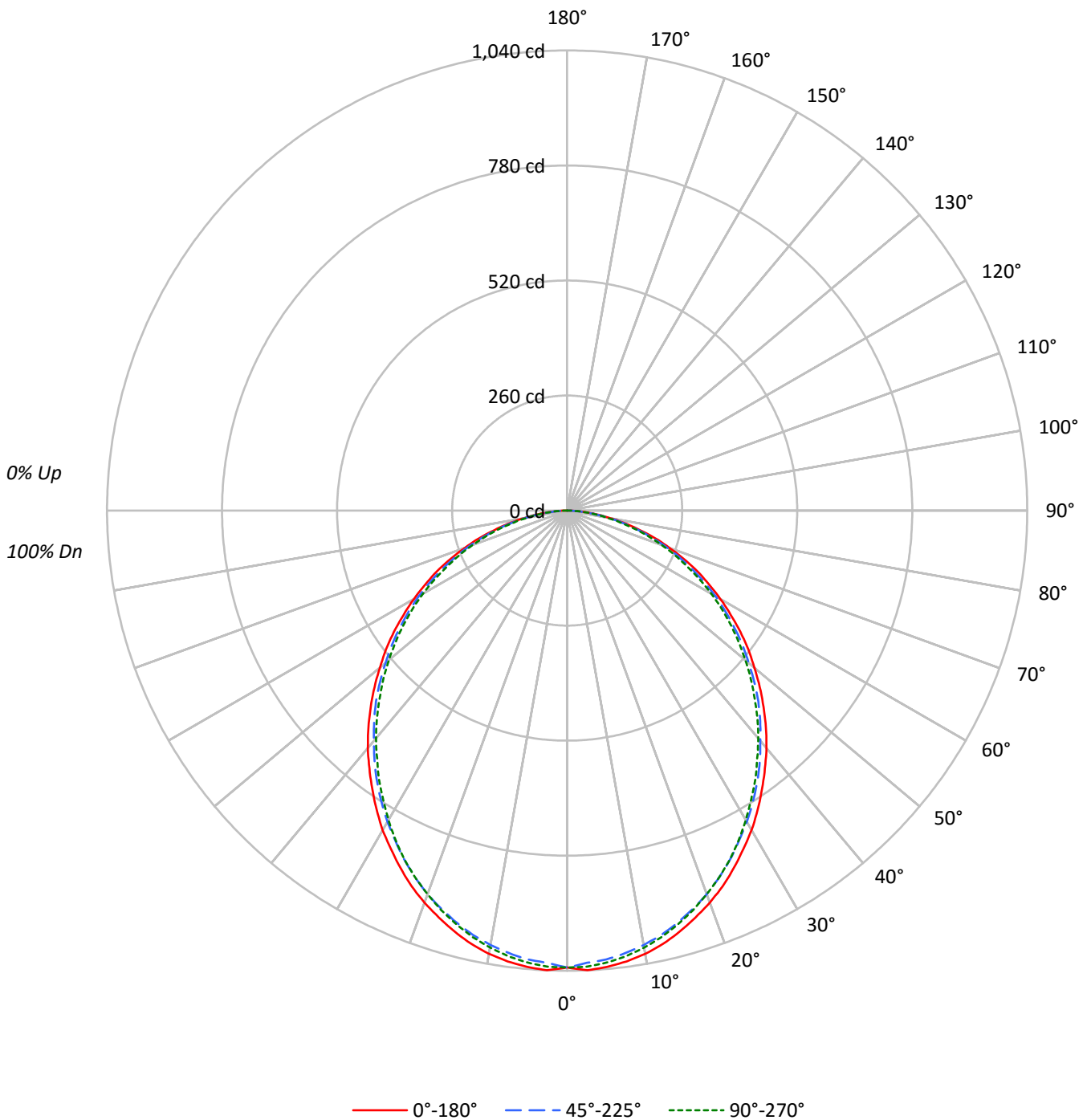
Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44					44			
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28872	28872	28872
5°	29049	28578	28780
10°	28877	28298	28468
15°	28504	27913	28017
20°	28053	27446	27446
25°	27498	26868	26831
30°	26917	26223	26068
35°	26212	25556	25311
40°	25580	24792	24529
45°	24822	24158	23683
50°	24022	23291	22873
55°	23299	22485	22017
60°	22377	21639	21035
65°	21480	20527	19813
70°	20076	19291	18604
75°	18374	17596	16948
80°	16003	15231	14667
85°	13440	12286	11901



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.3	3.7
10°-20°	273.9	10.3
20°-30°	403.6	15.2
30°-40°	470.4	17.7
40°-50°	472.0	17.8
50°-60°	414.4	15.6
60°-70°	308.4	11.6
70°-80°	172.8	6.5
80°-90°	45.9	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°	774.8	29.1
0°-40°	1245.2	46.8
0°-60°	2131.6	80.2
0°-90°	2658.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2658.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1033	1033	1033	1033	1033	
5°	1035	1029	1018	1028	1026	98
15°	985	976	964	972	968	278
25°	891	882	871	872	870	411
35°	768	760	749	745	742	481
45°	628	622	611	603	599	484
55°	478	472	461	455	452	427
65°	325	319	310	304	300	320
75°	170	166	163	157	157	181
85°	42	41	38	38	37	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1032.7	1032.7	1032.7	1032.7	1032.7
2.5°	1039.9	1033.9	1023.1	1033.9	1031.5
5°	1035.1	1029.1	1018.3	1027.9	1025.5
7.5°	1027.9	1020.7	1008.8	1018.3	1016.0
10°	1017.2	1007.6	996.8	1004.0	1002.8
12.5°	1002.8	994.4	982.4	989.6	987.2
15°	984.8	976.4	964.4	971.6	968.0
17.5°	964.4	956.0	944.1	950.1	946.5
20°	942.9	933.3	922.5	927.3	922.5
22.5°	918.9	909.3	897.3	900.9	897.3
25°	891.4	881.8	871.0	872.2	869.8
27.5°	862.6	854.2	841.0	843.4	839.8
30°	833.8	825.5	812.3	811.1	807.5
32.5°	801.5	793.1	781.1	778.7	773.9
35°	768.0	759.6	748.8	745.2	741.6
37.5°	734.4	727.2	715.2	710.4	705.7
40°	700.9	692.5	679.3	674.5	672.1
42.5°	664.9	656.5	645.8	638.6	636.2
45°	627.8	621.8	611.0	602.6	599.0
47.5°	590.6	584.7	573.9	565.5	563.1
50°	552.3	547.5	535.5	528.3	525.9
52.5°	516.4	511.6	499.6	492.4	488.8
55°	478.0	472.0	461.3	455.3	451.7
57.5°	438.5	434.9	424.1	418.1	414.5
60°	400.2	395.4	387.0	378.6	376.2
62.5°	361.8	358.2	348.6	341.4	337.9
65°	324.7	318.7	310.3	304.3	299.5
67.5°	285.1	281.5	273.2	267.2	263.6
70°	245.6	242.0	236.0	230.0	227.6
72.5°	209.7	203.7	197.7	194.1	191.7
75°	170.1	166.5	162.9	156.9	156.9
77.5°	135.4	130.6	128.2	124.6	122.2
80°	99.4	98.2	94.6	93.4	91.1
82.5°	70.7	68.3	64.7	63.5	62.3
85°	41.9	40.7	38.3	38.3	37.1
87.5°	19.2	18.0	15.6	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)