

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: 10556.0

Luminaire Tested: **301IP/DL/40BX/60PAR16FL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 10556.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 301IP/DL/40BX/60PAR16FL
Description: 4/40W BIAX & 2/60W PAR16 FLOOD 4'DIR/INDIR PENDANT MNT
WHITE PERFORATED BODY w/OVERLAY, WHITE REFL IN OPEN TOP
Light Source: -
LAMP CODE : FT40W/2G11/RS/35 &
Ballast/Driver: 2 MAGNETEK BALLAST #C240I120RH WATTS=259

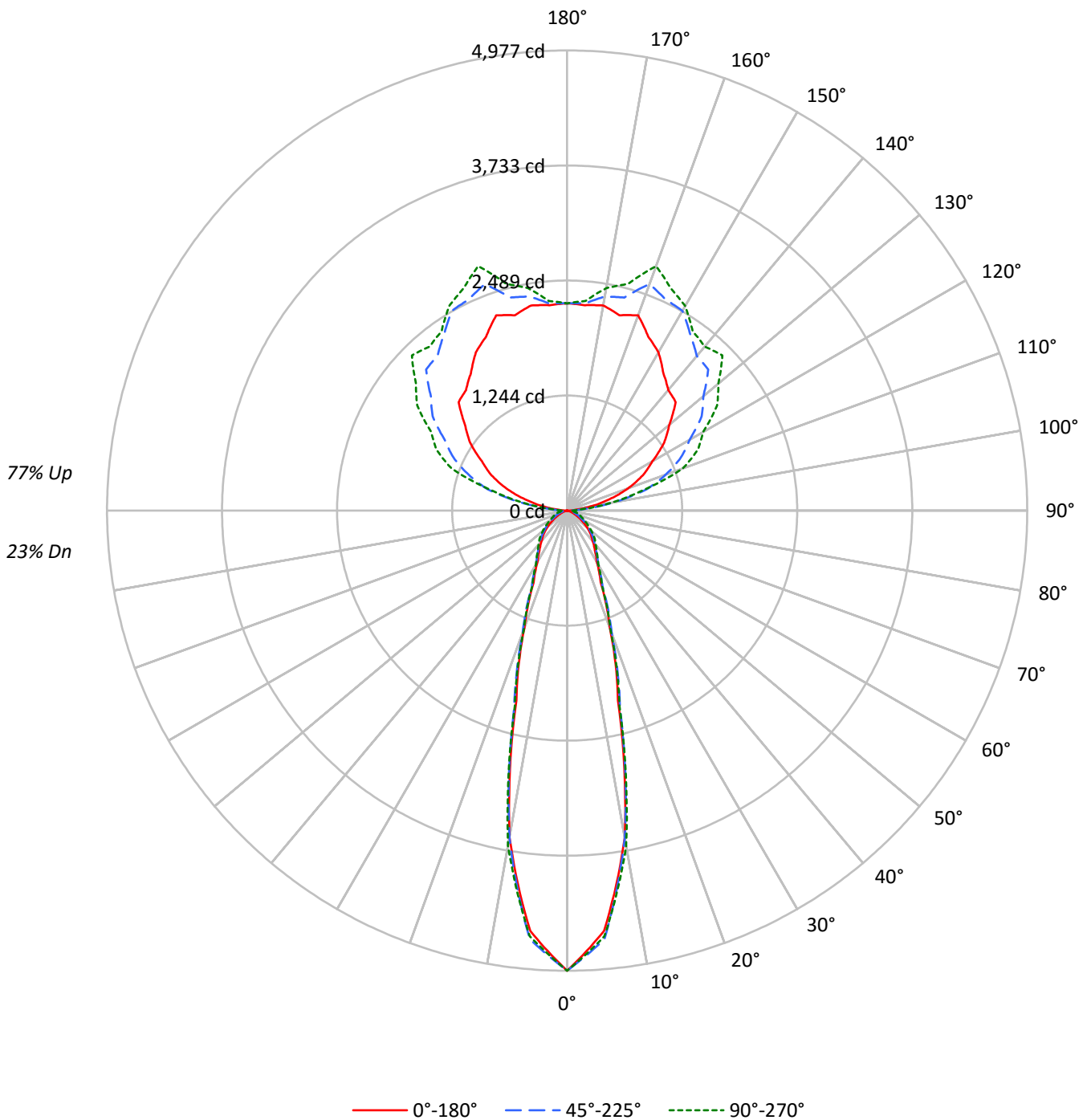
Summary

Lumens per Lamp: 13760 (1 lamp)
Luminaire Lumens: 11487.3 lumens
Efficiency: 83.5%
Efficacy: 44.4 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.5
Luminous Opening: Rectangular (W 1.29' x L: 3.62' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 259
Input Voltage (V): NR
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	84	84	84	84	75	75	75	75	57	57	57	41	41	41	26	26	26	19
1	77	74	71	68	68	66	63	61	50	49	47	36	36	35	24	23	23	17
2	71	65	61	57	63	58	54	51	45	42	40	33	31	30	22	21	20	15
3	65	58	52	48	58	52	47	44	40	37	35	30	28	26	20	19	18	14
4	60	52	46	41	53	46	41	38	36	33	30	27	25	23	18	17	16	13
5	55	46	40	36	49	42	37	33	33	29	27	25	22	21	17	16	15	12
6	51	42	36	32	45	38	33	29	30	26	24	23	20	19	16	15	14	11
7	47	38	32	28	42	35	29	26	28	24	21	21	19	17	15	14	13	10
8	44	35	29	25	39	32	27	23	25	22	19	19	17	15	14	13	12	10
9	41	32	26	23	37	29	24	21	23	20	18	18	16	14	13	12	11	9
10	39	30	24	21	35	27	22	19	22	18	16	17	15	13	12	11	10	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11470	11470	11470
5°	10561	10757	10693
10°	8394	8411	8614
15°	5070	5278	5211
20°	3323	3453	3355
25°	2182	2294	2256
30°	1706	1783	1794
35°	1469	1559	1576
40°	1288	1384	1444
45°	1173	1278	1366
50°	997	1126	1230
55°	804	988	1097
60°	622	862	1000
65°	458	758	960
70°	323	694	964
75°	249	650	1024
80°	93	637	1141
85°	26	873	1639



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	409.2	3.6	3.0
10°-20°	638.1	5.6	4.6
20°-30°	435.0	3.8	3.2
30°-40°	345.4	3.0	2.5
40°-50°	298.8	2.6	2.2
50°-60°	217.7	1.9	1.6
60°-70°	136.1	1.2	1.0
70°-80°	77.0	0.7	0.6
80°-90°	36.6	0.3	0.3
90°-100°	218.1	1.9	1.6
100°-110°	817.4	7.1	5.9
110°-120°	1279.1	11.1	9.3
120°-130°	1532.0	13.3	11.1
130°-140°	1607.1	14.0	11.7
140°-150°	1400.1	12.2	10.2
150°-160°	1134.3	9.9	8.2
160°-170°	687.1	6.0	5.0
170°-180°	218.2	1.9	1.6
0°-30°	1482.3	12.9	10.8
0°-40°	1827.8	15.9	13.3
0°-60°	2344.3	20.4	17.0
0°-90°	2593.9	22.6	18.9
90°-120°	2314.6	20.1	16.8
90°-150°	6853.8	59.7	49.8
90°-180°	8893.0	77.4	64.6
0°-180°	11487.3	100.0	83.5

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4977	4977	4977	4977	4977	
5°	4565	4648	4650	4624	4622	406
15°	2125	2208	2212	2186	2184	626
25°	858	878	902	903	887	422
35°	522	537	554	553	560	330
45°	360	370	392	410	419	275
55°	200	214	246	266	273	181
65°	84	105	139	166	176	87
75°	28	41	73	103	115	29
85°	1	11	33	54	62	2
90°	0	9	20	35	42	12
95°	84	208	164	147	156	125
105°	473	678	891	860	846	504
115°	902	1120	1358	1499	1561	884
125°	1281	1612	1777	1936	1980	1134
135°	1660	2070	2158	2317	2374	1249
145°	1814	2096	2322	2340	2368	1145
155°	2075	2236	2518	2630	2651	966
165°	2187	2243	2385	2497	2537	629
175°	2230	2233	2249	2267	2275	214
180°	2241	2241	2241	2241	2241	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4977	4977	4977	4977	4977
5°	4565	4648	4650	4624	4622
10°	3587	3618	3594	3550	3681
15°	2125	2208	2212	2186	2184
20°	1355	1383	1408	1391	1368
25°	858	878	902	903	887
30°	641	659	670	668	674
35°	522	537	554	553	560
40°	428	443	460	468	480
45°	360	370	392	410	419
50°	278	291	314	335	343
55°	200	214	246	266	273
60°	135	151	187	209	217
65°	84	105	139	166	176
70°	48	68	103	131	143
75°	28	41	73	103	115
80°	7	20	48	78	86
85°	1	11	33	54	62
90°	0	9	20	35	42
95°	84	208	164	147	156
100°	264	478	510	483	478
105°	473	678	891	860	846
110°	699	915	1134	1310	1329
115°	902	1120	1358	1499	1561
120°	1065	1299	1529	1649	1696
125°	1281	1612	1777	1936	1980
130°	1441	1815	1923	2081	2135
135°	1660	2070	2158	2317	2374
140°	1702	2051	2182	2270	2315
145°	1814	2096	2322	2340	2368
150°	1975	2206	2494	2548	2553
155°	2075	2236	2518	2630	2651
160°	2246	2366	2606	2773	2814
165°	2187	2243	2385	2497	2537
170°	2252	2275	2350	2419	2443
175°	2230	2233	2249	2267	2275
180°	2241	2241	2241	2241	2241

(END OF REPORT)